

AUGUST 1959

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House & Home

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CHICAGO

The production house
and indoor-outdoor living

Solid sell!

New solid vinyl is a big talking point ... looks better ... costs less

Install Wonderflor*, the new vinyl tile by Congoleum-Nairn, and you put a lot of extra selling zip into your homes.

This beautiful tile is vinyl right through to the Sure-Grip back—real honest vinyl toughness *all the way*. You can tell prospects this floor will give *twice the wear resistance of service gauge linoleum!*

It's wonderfully comfortable underfoot too: exceptional resilience. Yet it resists indenting by weights up to 150 pounds per square inch! And, of course, it has all of vinyl's easy-cleaning, non-staining features, plus a new buffered smooth-glow finish that is a real long-lasting beauty even under heavy household traffic.

Best of all, Wonderflor costs no more than floor tiles with just a thin layer of vinyl veneer on top—it's backed by the famous, nationally advertised name: Congoleum-Nairn—and is made in today's most popular interior colors. See them all. Write to Builders' Bureau, Congoleum-Nairn Inc., Kearny, N. J.

WONDERFLOR*
solid vinyl tiles



Congoleum-Nairn
FINE FLOORS

©1959 CONGOLEUM-NAIRN INC., KEARNEY, N. J.

*TRADEMARK



PUT PROSPECTS IN A BUYING MOOD WITH . .

NuTone

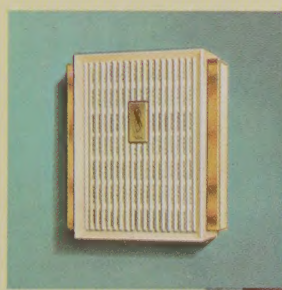
Door Chimes



"Cheerful Earful" & "Delightful Sightful"

Some like them **SURFACE MOUNTED**
 .. Some like them **BUILT-IN**
 ... **NUTONE HAS THEM BOTH!**

Make your homes more inviting with this friendly "hello" at your doorways. NuTone Door Chimes are beautiful to hear . . attractive to see . . . add elegant charm to your hallways, living rooms or kitchens. Brilliantly designed in Contemporary and Traditional models to suit any interior. 23 handsome styles ranging from low cost two-note chimes . . to exquisite eight-note Westminster-chord masterpieces. Built-In or Surface-Mounted.



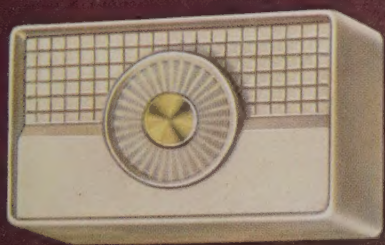
← **Model L-21 "Rythmatic"** . . White and Silver Anodized . . or Ivory and Gold Anodized. Repeating chime notes for front door, 2 notes rear and 1 note for third door. \$9.95 list



↑ **Model L-30 "Chord Tone"** . . Desert Sand cover. Smart grille with gold flecked grille cloth. Two chord tones for front door, two notes for rear. \$13.95 list



← **Model L-36 "Built-In Chord Chime and Clock"** Stunning design plus chord tones. Telechron movement. Pleasing to the ear, attractive to the eye. Simplified installation . . no clock outlet needed. Flush with wall. Chime housing completely recessed. Choice of Copper, Gold or Silver Anodized. 2 chords for front, 2 notes rear. \$22.50 list



↑ **Model L-12 "Champion"**
 Plastic cover in White and Silver or Ivory and Gold. 2 notes front, 1 for rear. \$4.95 list

FREE CATALOGS
 Write **NUTONE, INC.**
 DEPT. HH-8
 Cincinnati 27, Ohio

SEE OTHER SIDE

Gold or Silver



PB-1
.48



PB-2
\$1.00



PB-3
\$1.25



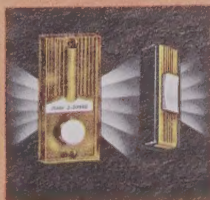
PB-4
\$1.25



PB-5
\$3.25



PB-6
\$1.25



PB-8
\$2.50

PB-10
\$1.58



PB-11
.60



PB-12
.37



PB-14
\$1.25



PB-15
\$1.25



PB-16
\$1.58



PB-17
\$2.50

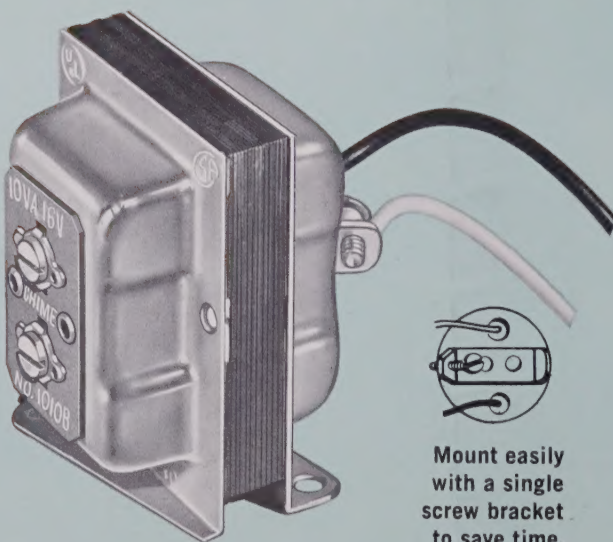


PB-21
\$1.75

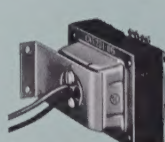
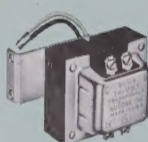
DRESS UP YOUR DOORWAYS WITH . .

NuTone Pushbuttons

Home sales start at the front door when you use NuTone Pushbuttons. Here's beauty that will last because NuTone Pushbuttons are Anodized to prevent rust or tarnish. You can choose either Traditional or Modern styles . . with standard type buttons or with sparkling new ELECTRICALLY LIGHTED pushlites that shine like jewels to brighten the doorway at night.



Mount easily
with a single
screw bracket
to save time.



5 models \$2.54 list to \$4.73 list.

*Lifetime
Guarantee
on ALL*

NuTone Transformers



NUTONE TRANSFORMERS HAVE "LIFE-TIME" GUARANTEE BECAUSE THEY CONTAIN A BI-METAL THERMAL CUTOUT FOR PROTECTION AGAINST OVERLOAD OR SHORT CIRCUIT.

Especially recommended for all NuTone Door Chimes
Ideal for air conditioning, oil or gas heating systems.

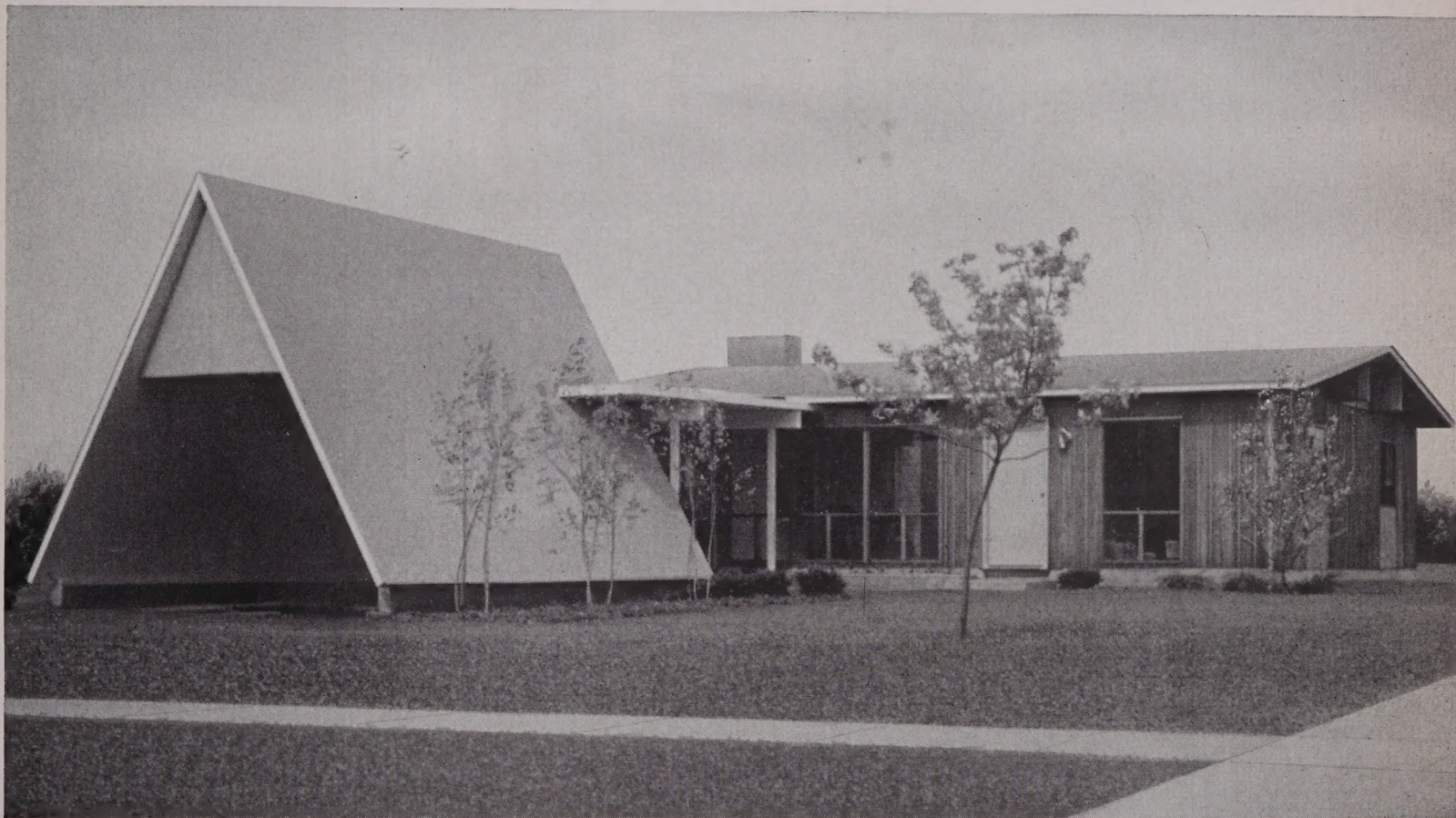
NEW CATALOGS! Write NUTONE, INC. Dept. HM-8 Cincinnati 27, Ohio

Name _____ Firm _____
Address _____
City _____ State _____

SEE OTHER SIDE

NAHB Research House features

Climate by Chrysler



1959 NAHB RESEARCH HOUSE, South Bend, Ind. Three bedrooms, one bath, fully air conditioned. Built to sell below \$15,000.
Sponsor: NAHB Research Institute. Builder: Andrew S. Place. Architectural Design: NAHB Research Institute. Consulting Architect: Herman York.

New high-quality air conditioning, heating and air purification for a low-budget home

Perfect year-round climate for a limited-budget home . . . that's the contribution of Chrysler engineering to the NAHB Research House in South Bend, Ind.

Climate by Chrysler is the next step beyond mere air conditioning. In addition to automatic heating, cooling, humidifying, and dehumidifying, this Chrysler system actually purifies the inside air. It traps even the tiniest particles of dust, dirt and pollen electrostatically. Kills airborne germs electronically. And absorbs smoke, fumes and odors almost magically!

Climate by Chrysler makes any home more salable. It's the kind of luxury

home feature every buyer wants. Yet it's so low in cost it can be included in a quality home like the NAHB Research House that's built to sell for less than \$15,000.

High customer appeal is just one of the many advantages Chrysler Air Conditioning offers the builder. The entire installation and service job is handled locally by a factory-trained Chrysler Airtemp Dealer. No extra subcontractors are needed. And troublesome service calls are eliminated.

To get all the facts on Climate by Chrysler and the new Chrysler Builder Program, call your Chrysler Airtemp Dealer. He's in the Yellow Pages.



Airtemp Division, Chrysler Corporation, Dept. L-89, Dayton 1, Ohio. Canadian Distributor: Therm-O-Rite Products, Ltd., Toronto, Ontario



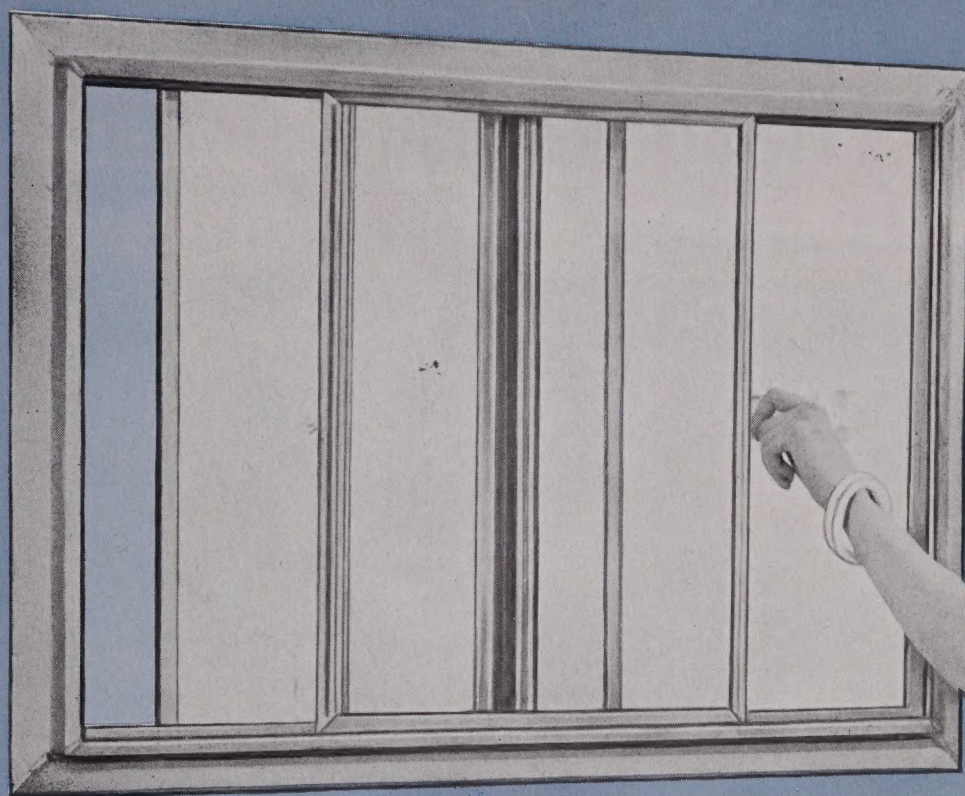
Two great new

**NEW SINGLE HUNG WINDOW
WITH REMOVABLE SASH**
...at lower than ever cost!

- Push-button, lift-out lower sash
- Full length finger rail
- No metal to metal contact on moving parts
- Interlocking meeting rail
- Positive mechanical balance holds set adjustment
- Hollow extrusions for added strength
- Snap-in hard vinyl simplifies reglazing



ROLLING GLASS DOORS • PRIME WINDOWS
• WINDOW WALLS • COMBINATION STORM
DOORS, WINDOWS, SCREENS • JALOUSIES
• EXTRUSIONS



windows from Capitol!

NEW FOUR TRACK SLIDER

designed for builders...by builders

**WITH ALL THE MOST
ASKED FOR FEATURES:**

- Prime window and storm sash tracks in one integral frame
- All panels easily inserted from inside . . . can't be removed from outside
- Two full length finger rails for easy opening of prime window
- Storm sash and prime window have full vinyl weatherstripping for air-tight fit
- Save on delivery . . . storm sash can be shipped pre-installed in prime slider
- Heavier welded frame . . . maximum rigidity

See Your Capitol Distributor For Full Information

CAPITOL PRODUCTS CORPORATION

MECHANICSBURG, PA.

CAPITOL . . . a single source, singular service for ALL your aluminum doors and windows!



consider the facts..

about

Bestwall

Gypsum

Sheathing:

—no other type of sheathing can compare with it, dollar for dollar, feature for feature.

BESTWALL GYPSUM SHEATHING IS A DEPENDABLE, ECONOMICAL BASE FOR ANY EXTERIOR FINISH. PROVED IN MILLIONS OF HOMES AND BUILDINGS, COMPARE THESE ADVANTAGES:

1. It will not burn or support combustion.
2. Cutting waste is less than 3%.
3. Assures positive weather protection because it is water repellent, free from serious warping, buckling and shrinkage.
4. Accurate fit because panels are machine-made for precision fitting on the studs.
5. Requires fewer nails, less handling.
6. Greater strength because it is made from rock. Each full panel ties seven studs together.
7. Can be scored and snapped right on the studs with any pointed, heavy-blade knife.
8. No other sheathing offers lower material cost.
9. One man can apply up to 1,500 sq. ft. per day.
10. Eliminates need for building paper (unless required by local regulations)."

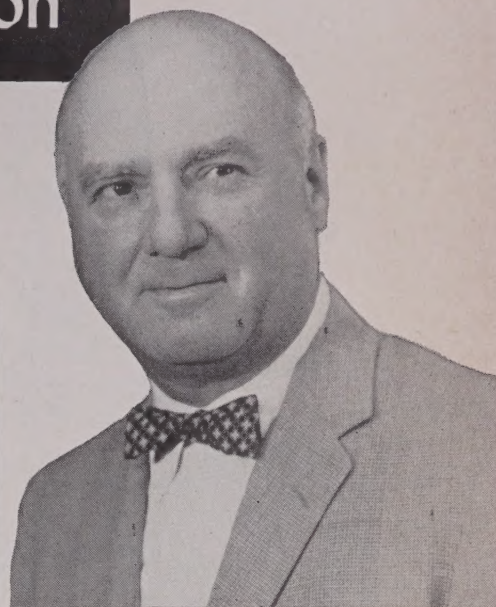
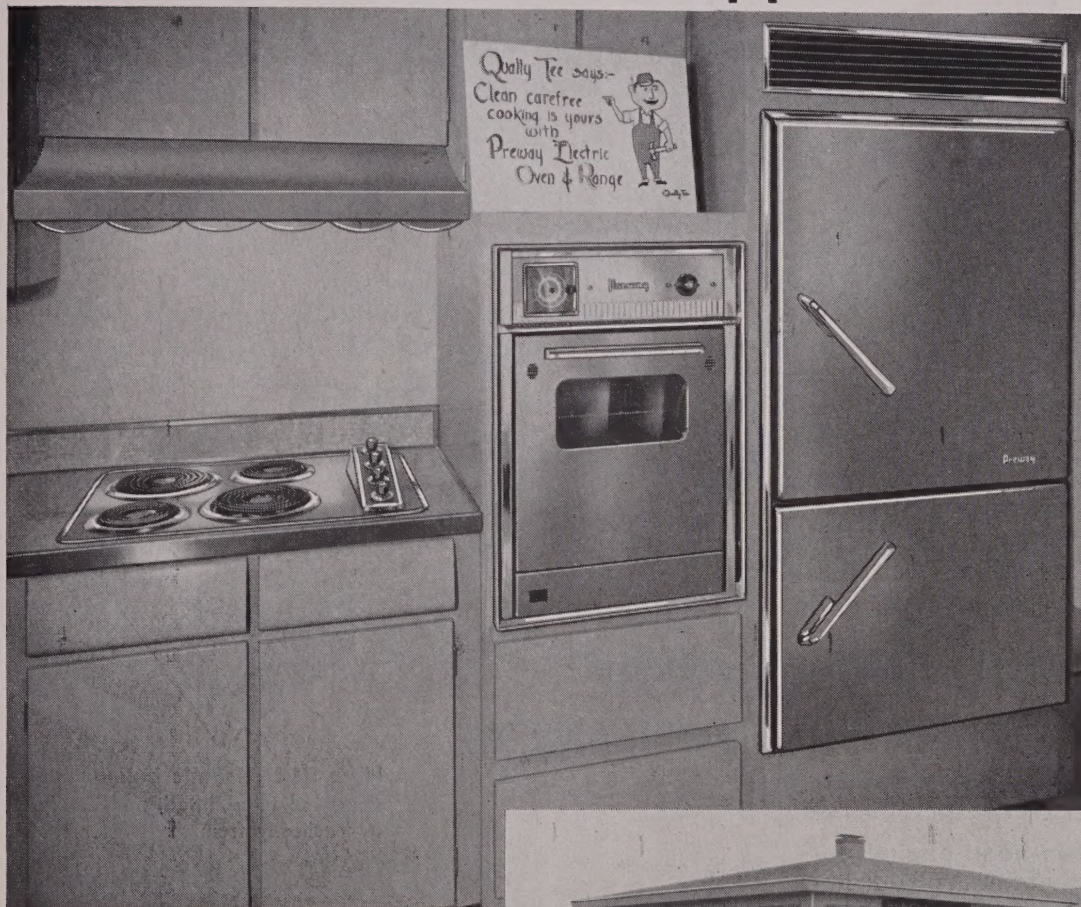
See your Bestwall representative for detailed performance and installation specifications soon. You'll be money ahead!



BESTWALL GYPSUM COMPANY • Ardmore, Pennsylvania • Plants and offices throughout the United States

Dependable Performance moves pioneer home builder Caron

to **PREWAY**® the pioneer leader
in built-in appliances



President of Justin A. Caron & Co., Inc., is Justin A., son of the late August S., who has devoted a lifetime to the building industry, and who has given progressive, responsible leadership to home building in the Chicago area.

340 homes like this form Spring Hills at Roselle, Illinois, 30 miles due west of Chicago — the newest Caron development. House costs range from \$18,650 to \$24,800.



PREWAY Built-In appliances play an important part in the functional planning and delightful appearance of the kitchens you'll find in the Spring Hills Homes development of Justin A. Caron & Co., Inc., one of Chicago's oldest and most respected builders.

Behind PREWAY'S smart styling is a basic quality of construction that backs up the standards demanded by Caron specifications. With more than 60 years of experience in home building — the company was established in 1888 — Caron has been around long enough to know

that a builder's reputation rests squarely on the performance of his houses.

Justin Caron puts it this way, "We can't afford to take chances to save a few dollars, and we don't need to ride on any name but our own. We check out the quality of everything in our homes and we buy where we are sure of trouble-free operation. That's why we have put PREWAY into our kitchens, the company that has pioneered the field in built-in construction. Our experiences, and those of our builder friends, say that you don't have house-holder complaints and service calls with PREWAY ovens, ranges and refrigerator-freezers."

If you, too, want to make a good kitchen better and build your reputation for quality, contact the PREWAY distributor in your area, or write for data bulletins on the PREWAY appliances of interest to you.

PREWAY INC.

2859 Second Street, N., Wisconsin Rapids, Wis.

Since 1917 — Pioneer manufacturer of built-in appliances . . . refrigerator-freezer combinations, gas and electric ovens and surface units, ventilating range hoods, dishwasher. Member of Brand Names Foundation.



New 45 hp low-

Leads the small crawler field in

POWER • SPEEDS • STEERING • EQUIPMENT

Job-proved, high-torque, valve-in-head engine develops 45 maximum flywheel horsepower . . . 31 draw-bar horsepower. Job-proved fuel economy.

5 speeds forward, one reverse, with regular transmission.

5 speeds reverse . . . 5 speeds forward with Fast Reverser for faster cycles on shuttle-type work. Go $22\frac{1}{2}$ per cent faster in reverse than in corresponding forward gear. Or . . .

10 speeds forward with exclusive IH Torque Amplifier drive. Boost pull- or-push-power on-the-go in any gear without shifting.

Planetary steering allows for feathered or pivot turns with minimum physical effort. Simple, rugged design simplifies maintenance.

Exclusive, advanced hydraulics deliver 12 or 17 gpm from constant-running, *internal-mounted* pump. Controls heavy duty loaders and a wide range of hydraulically-controlled front-mounted, rear-mounted, or trailing equipment.

Husky track frames, shoes, links, rollers, pins, and bushings assure long track life.

New IH hydraulic bull-grader—angled, tilted, lifted, and lowered hydraulically from the tractor seat.



New International Drott T-340 Four-In-One Skid-Shovel—combines in one machine a bulldozer, clamshell, carry-type scraper, and $\frac{3}{4}$ cu yd bucket ($\frac{1}{8}$ cu yd heaped), all hydraulically controlled.

New International Wagner backhoe and loader—can be mounted separately or in combination. Self-leveling loader has 3,500-lb capacity.



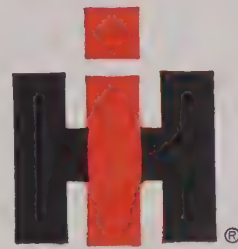
International® T-340...

cost utility power

with crawler traction

Here's power and performance entirely new to the utility crawler field! It's the new International T-340 with power, speeds, job range, and handling ease entirely new to small crawler operation. You now can profit from crawler pull-power and flotation... with proven IH stamina and dependability... scaled in cost to the multitude of jobs where you can't afford to tie up bigger, more costly equipment. With such job-matching options as Torque Amplifier, Fast Reverser, and big-capacity internal hydraulic system, coupled with new planetary-type steering, the new T-340 offers production-boosting features not even available in many larger crawlers!

Try it... test it! Phone your nearby IH Dealer for a T-340 demonstration! For specification folder, write International Harvester Co., Dept. , P. O. Box 7333, Chicago 80, Illinois.



See your

**INTERNATIONAL
HARVESTER Dealer**

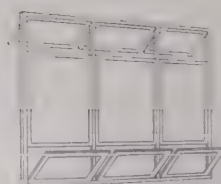
International Harvester Company products pay for themselves in use—
Farm Tractors and Equipment... Twine... Industrial Tractors... Motor
Trucks... Construction Equipment—General Office, Chicago 1, Illinois





**SELECT THE "YEAR-ROUND" COMFORT
OF QUALITYBILT 4-WAY WOOD WINDOWS!**

Insure maximum comfort for your customers with Qualitybilt 4-Way Windows. Plan hundreds of delightful, eye-catching window arrangements that put walls of light and cool, refreshing summer breezes in just the right places . . . or lock snug and draft-free to defy the most chilling winter winds. You can do this with the wide range of sizes of the two basic units . . . Two-Sash and Single Sash. Use them singly or in imaginative combinations . . . as Awning Hopper, Casement, or Fixed Units. Create hundreds of other attractive arrangements with standard Picture Units. And get this amazing flexibility at the most economical prices!



Qualitybilt 4-Way Windows are completely weatherstripped, with a variety of glass, hardware, and operators. Accurately machined of Ponderosa Pine, toxic treated to last a housetime. For the complete story write for illustrated catalog and name of nearest distributor!

FARLEY & LOETSCHER MFG. CO.
DUBUQUE • IOWA

Entrances • Doors • Frames • Sash • Blinds • Casements • Glider Windows • Sliding Doors • Screens
Combination Doors • Storm Sash • Garage Doors • Mouldings • Interior Trim • Sash Units • Louvers
Kitchen Cabinet Units • Cabinet Work • Stairwork • Disappearing Stairs • "Farlite" Laminated Plastics

4-WAY
Qualitybilt
WINDOWS

FEATURE QUALITY AT LESS COST

tapered track

plus full five year guarantee



One nudge—and the Berry sectional is up and over . . . thanks to the tapered track with adjustable roller brackets. Here is the quality feature found only on much higher priced doors—and one that helps sell prospects. It means easy opening, easy closing—without friction or wear. And always a snug, tight fit. Pre-assembled track mounting brackets make installation a cinch, too.

Check the dozen other exclusives and know why Berry sells more residential garage doors than any other manufacturer. And remember—only Berry protects you with a full five year guarantee. One-piece or sectional models. Window lites and trim optional. See your distributor or write: Berry Door Corp., 2400 E. Lincoln, Birmingham, Michigan. In Canada: Berry Door Co., Ltd., Wingham, Ontario.

Berry
STEEL DOORS





The difference between this is often **USS** American Welded Wire

WHEN you use USS American Welded Wire Fabric for all concrete areas for the homes you build, you give them a definite sales advantage over houses without this important quality feature. Walks, patios, driveways and basement slabs will wear better, look better, and last longer when they're reinforced with USS American Welded Wire Fabric. And your customers know this . . . they know to ask before they buy "is it reinforced?"

Put this sales-pulling advantage to work for you. Use USS American Welded Wire Fabric in all your concrete work. Tell your prospects it costs only about a penny a day on

the mortgage life to insure protection and appearance of concrete around the average home . . . that reinforced concrete will be in good condition even after the mortgage is paid, USS American Welded Wire Fabric adds 30% to the strength of concrete. It is made of cold-drawn steel wire and is prefabricated for quick, easy installation. It's available in a wide variety of styles and sizes. For more information, see your building supply dealer, or write to American Steel & Wire, Dept. 937, 614 Superior Avenue, N.W., Cleveland 13, Ohio.

USS and American are registered trademarks



and this

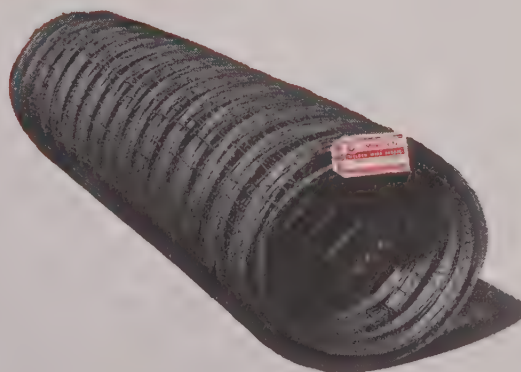
Fabric for concrete reinforcement

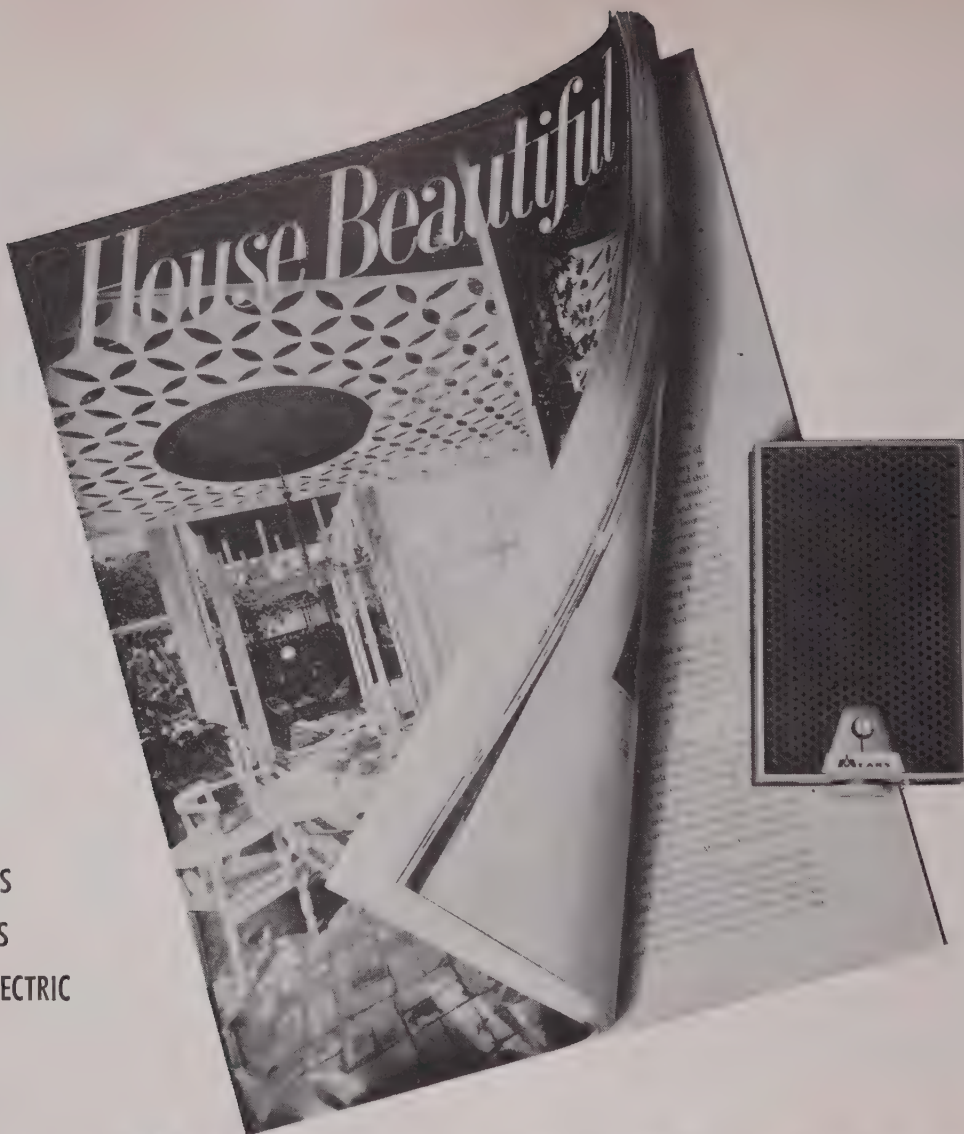
Buyers will ask, *"is it Reinforced"*



**American Steel & Wire
Division of
United States Steel**

Columbia-Geneva Steel Division, San Francisco, Pacific Coast Distributors
Tennessee Coal & Iron Division, Fairfield, Ala., Southern Distributors
United States Steel Export Company, Distributors Abroad





NATIONAL ADVERTISING IS
TELLING YOUR PROSPECTS
ABOUT THE FINEST IN ELECTRIC
HEAT THERMOSTATS . . .

MEARS "DECORATOR"

Your best customers and prospects will be reading about the *new*, 1960 Mears "decorator" thermostat in *House Beautiful* this year. Advertisements starting in September will be telling them about the 1960 model . . . the M-6 series . . . the stylishly slim, dependable electric heat thermostat . . . the only thermostat recognized in the 1958 *Annual Industrial Design Review*.

We invite you to learn more about the "decorator" and other Mears electric heating controls. Call your local distributor, or send coupon (right) today for informative catalog.

EASY TO INSTALL

Extra-strong base can't warp at time of installation. Can be installed over rough plaster or mud rings and uneven walls without hindering performance or destroying appearance. Easy to adjust control knob.

Plenty of room for connecting power and lead wires. Screw type terminals make it unnecessary to loop ends of wires, make it easier to connect wires in less time, assure a more positive connection.

*Face panel easily
painted to blend
with walls.*

The Sleek, Slim, Modern Mears "Decorator" Thermostat . . . compliments classic or contemporary interiors . . . and at the same time is superbly engineered for exceptionally accurate control of electric heating. Quick response is assured because this sensitive instrument has a full perimeter of air space between wall and thermostat. Perforated "decorator" face plate allows radiant heat to strike the sensing element. Snap action switch (the electrical switch everyone's used to) assures no TV or radio interference, longer life. You and your customers are assured accurate, dependable temperature control backed by Mear's 18-month warranty.

CONTACT YOUR ELECTRICAL DISTRIBUTOR FOR FULL INFORMATION, OR SEND FOR INFORMATIVE CATALOG.

MEARS ELECTRIC CONTROLS, INC.
Swan Island, Portland 17, Oregon

Please send your catalog on the new "decorator" thermostat and names of suppliers in our area.

Name.....
Address.....
City..... Zone..... State.....
Profession.....



Now America's only bonded line of home heating and air conditioning is bigger and better than ever.

Exclusive
\$500

Coleman

**WARRANTY
BOND**

next to the
furnace itself,
Coleman's
bond does your
best selling

COLEMAN'S EXCLUSIVE \$500 WARRANTY BOND*

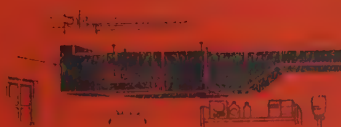
assures your buyer he's getting the best in comfort, the finest quality in heating equipment. This unique bond stands behind every Coleman heating and air conditioning unit. The Trim-Boy horizontal-flow furnace shown below—in sizes from 85,000 to 145,000 BTU input—speaks of quality with a soft-voiced blower and unexcelled performance. Designed with air conditioning in mind, now or later. Call your Coleman distributor or write.



The Coleman Company, Inc./Wichita 1, Kansas



ATTIC



UTILITY ROOM



BASEMENT



CRAWLSPACE

*Issued by Travelers Indemnity Company of Hartford, Connecticut

An important challenge to:

the **1** builder in **2** who **INSTALLS** his own **INSULATION**

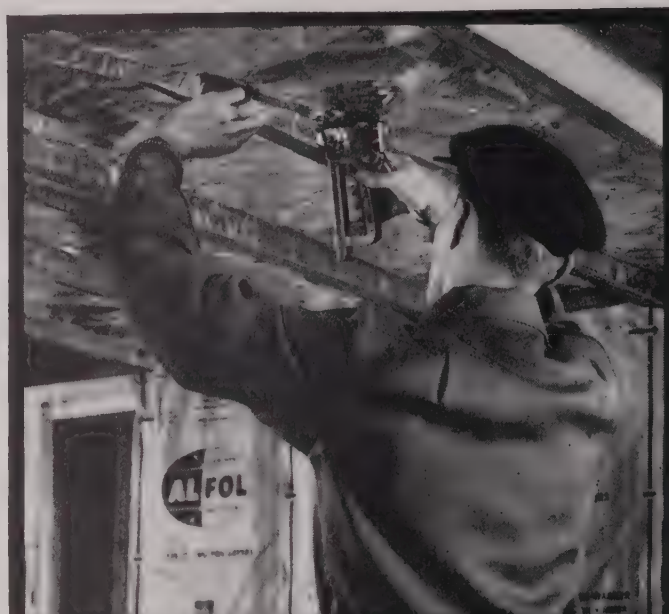
**Let your own men prove
how today's ALFOL Blanket
can save you time and money**

To find out how much time and labor *you* can save with Borg-Warner's ALFOL Blanket, make this simple test. First, figure the payroll cost of insulating your average home with the material you are presently installing.

Then, using your regular application labor, insulate just one home with ALFOL. Your own watch will prove that ALFOL installs faster...from the very first panel. And later, as your men get used to it, your ALFOL savings grow...until ultimately, speeds may be attained up to *twice* those possible with bulk-type materials.

That's because faster installation is a built-in feature of today's ALFOL Blanket. Expansion of the aluminum foil layers is automatic. And there's no bulk to wrestle with, no tedious cutting and fitting—ALFOL installs in full-panel lengths. It's clean, light, non-irritating, too...your men will really like it.

So, too, will your customers. For ALFOL gives them full winter efficiency...plus the finest summer value obtainable. Isn't it time *you* discovered the money saving possibilities of ALFOL Reflective Insulation? Use the handy coupon below.



ALFOL application . . . fast, easy, positive



- 1** Cut or tear ALFOL blanket to full panel length.
- 2** After stapling one flange, pull blanket to expand.
- 3** Staple free flange... then seal across plates ...and the job is done!

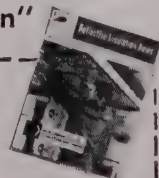
SEND TODAY for FREE brochure "New lower costs in insulation application"



Please send
Free ALFOL brochure:
"NEW
Lower Costs
in
Insulation
Application"

REFLECTAL CORPORATION, Department A-10
A subsidiary of Borg-Warner Corporation
200 South Michigan Avenue, Chicago 4, Ill.

Name _____
Firm _____
Address _____
City _____ Zone _____ State _____



REFLECTAL

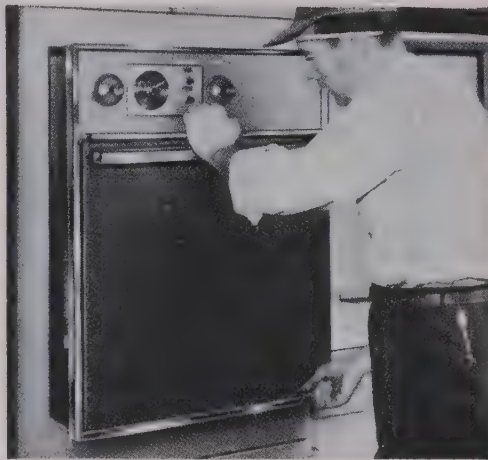
Borg-Warner

9294

DESIGNED WITH BUILDER SALES IN MIND

ADVANCED FRIGIDAIRE BUILT-INS

install fast—usually in 3 simplified steps



HERE'S PROOF! *Uncrated Drop-Leaf Door Wall Oven builds-in as fast as 7 min. 52 sec.*



9:00 In typical cabinet opening with rough wiring completed, mount junction box and connect attached 54" armored cable.

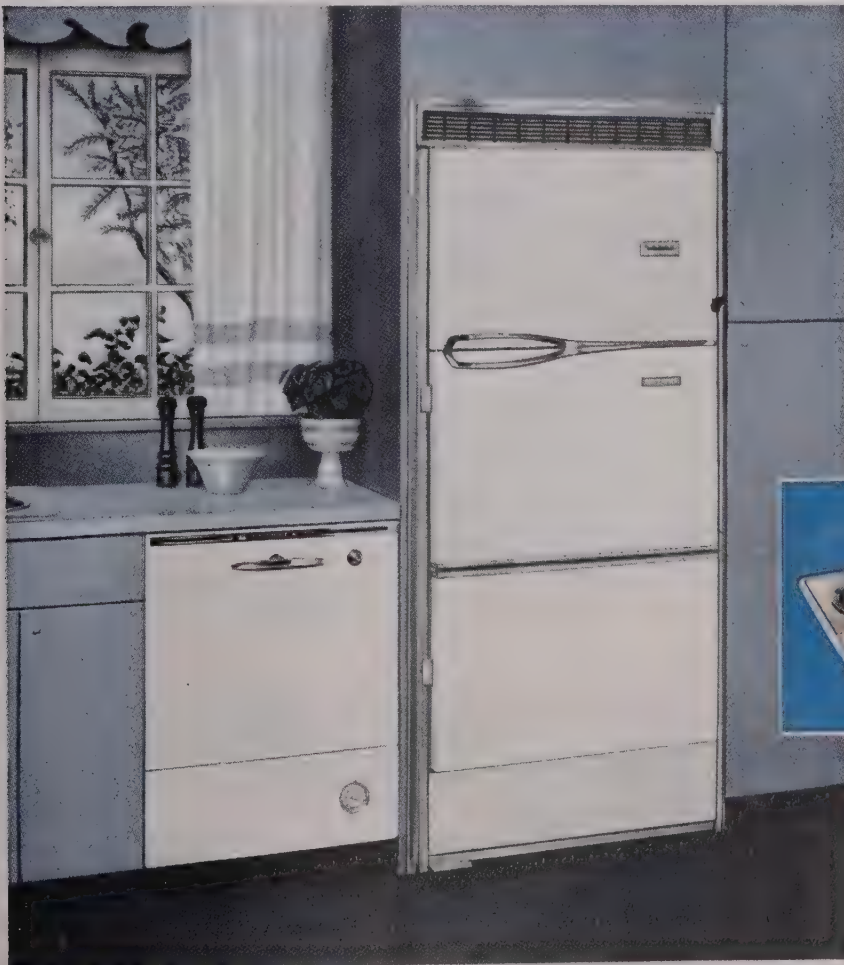


9:03:34 Test controls, then slide oven onto level* shelf. (Needs NO internal braces or external vents.)



9:07:52 Mount oven in cabinet with four concealed screws, and wipe oven clean.

*If necessary, leveling could have been done quickly with feet provided.



You get a real 1-2 jump on competition when your homes feature Frigidaire Built-Ins! *First*—You get Built-In Savings, as proven by the factory time-test shown above. *Second*—Your customers are assured of Built-In Satisfaction with stay-sold products like the first Wall Ovens with Drop-Leaf Doors for cleaning without stretching; "Built-In" Cooking Tops and Space-saving Fold-Back Surface Units; Imperial Dishwashers that Sparkle-Clean up to 48% more than comparable models checked; and Frost-Proof Refrigerator-Freezers. PLUS a choice of five Kitchen Rainbow colors or Satin Chrome (most models).



Cut Costs, Offer Satisfaction with FRIGIDAIRE!

Get first-hand information on Frigidaire Built-In Appliances—designed with *you* in mind—and on cost-cutting "Minute-Man" installations from your Frigidaire Builder Representative, or write Frigidaire Division, GMC, Dayton 1, Ohio.

GET THE FULL-PROFIT STORY ON WHY YOUR MODEL HOME SHOULD BE A

FRIGIDAIRE Model Home



FRIGIDAIRE

Built and Backed by General Motors

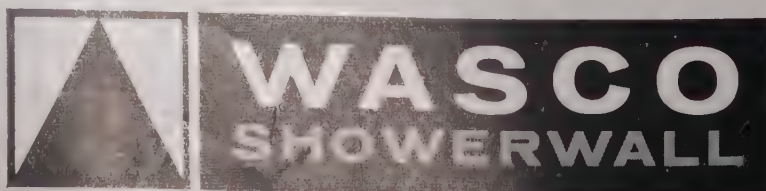


as
little
as
\$29⁹⁵*
puts the
luxury of
shatterproof
WASCO
SHOWERWALL
in your
bathrooms!

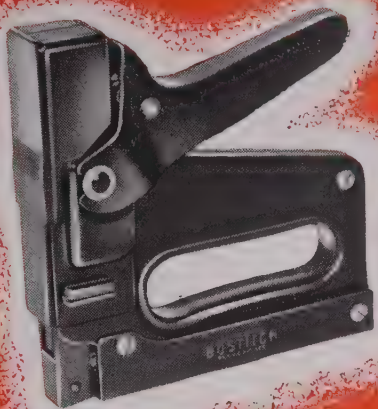


HERE'S SOMETHING NEW TO SELL . . . at a price that's unbelievable! Made of shatterproof Acrylite panels, Wasco Ocean Pearl Showerwall adds luxury to your bathrooms that is irresistible to women. And, women find these practical features irresistible, too: **SAFE . . .** made of shatterproof Acrylite; **EASY TO CLEAN . . .** just wipe it and it sparkles; **KEEPS WATER OFF THE FLOOR . . .** eliminates slipping and mopping; **HARMONIZES WITH ANY COLOR . . .** and, Ocean Pearl Showerwall never needs replacing.

GET THE PROFIT-MAKING FACTS, TODAY! *Your cost for Ocean Pearl Showerwalls can be as little as \$29.95 a unit in quantity lots. And, a free Showerwall is yours for your model home if you use Wasco Showerwalls in 24 or more homes. (Special plan for tracts of 100 or more homes.) For complete details and prices, wire collect.

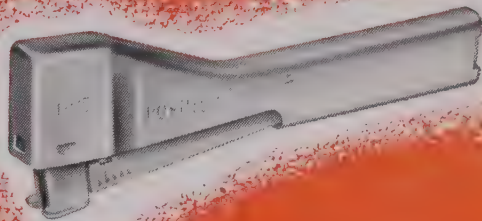


WASCO PRODUCTS, INC., 5 BAY STATE ROAD, CAMBRIDGE 38, MASS.



BOSTITCH T5 STAPLING TACKER

Slashes installation time on ceiling tile, insulation, screening, low-voltage wiring. Drives staples in five leg lengths—from 5/32" to 9/16". Three models for three wire sizes.



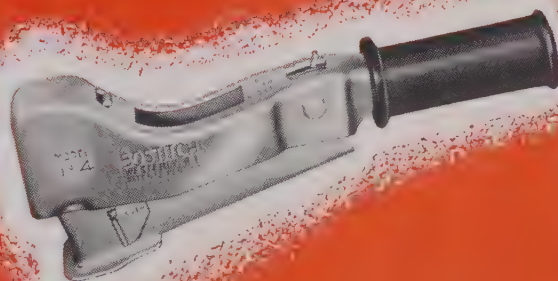
BOSTITCH H5 STAPLING HAMMER

Lightweight hammer for high-speed tacking of building paper, foil insulation and other light nailing jobs. Easy to use—like all Bostitch hammers. Takes 3/16", 1/4" or 5/16" staples.



BOSTITCH H2B STAPLING HAMMER

For medium-duty jobs such as roll and batt insulation, wooden undercourse shakes, cornerite and metal lath. Drives 1/4" or 3/8" staples. H2B1/2 drives 1/2" staples. Holds 160 staples.



BOSTITCH H4 STAPLING HAMMER

For applying asphalt shingles, tin disks on felt in built-up roofing and other heavy-duty stapling jobs. Drives 3/4" staple. Legs diverge—holding power equals two 3/4" nails of 1/16" wire.

TRY THESE COST-CUTTING BOSTITCH TOOLS ON YOUR JOB

See how they boost your profits wherever you use them

Rugged Bostitch tools speed work on hundreds of building jobs. Every time you use one, you save time. The time you save means jobs completed sooner—and at more profit.

Time saved is money saved. That's extra profit. When you lower costs, you can bid lower . . . get more contracts, too.

Try Bostitch tools on your jobs. See how savings mount

and your profits increase. Most building supply dealers have them.

Fasten it better and faster with



528 BRIGGS DRIVE, EAST GREENWICH, R. I.





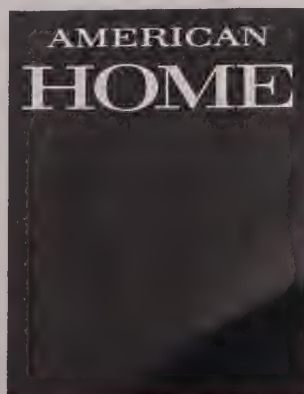
*American Home devotes
a greater share of its pages to*

building and remodeling

than any other mass magazine

That's one good reason why it's hard to find better prospects for building materials, appliances and home furnishings than the 12 million men and women who look to American Home for fresh, down-to-earth suggestions.

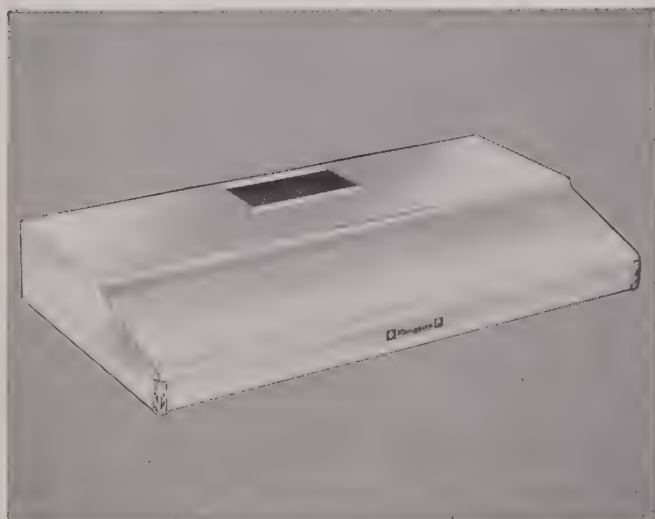
For 10 straight years a greater percentage of American Home families have remodeled their homes than have the families of any other mass magazine. And in 8 out of the past 10 years they've set similar records for building and buying new homes.



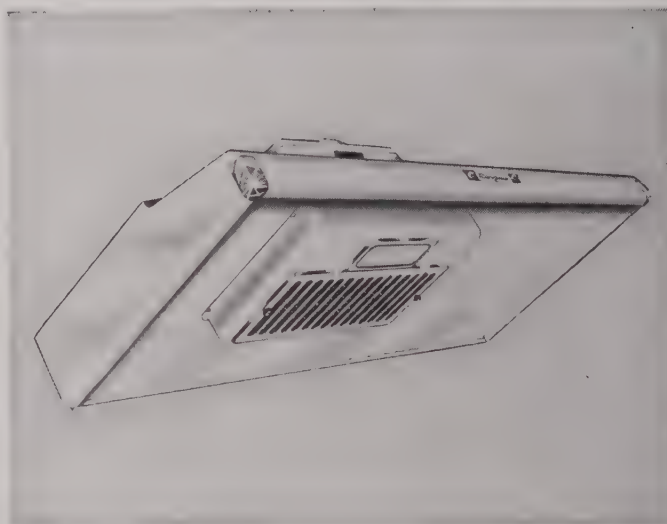
a Curtis magazine read by 3,600,000 families

BUILDER-ENGINEERING RESEARCH AMERICA'S MOST COMPLETE LINE

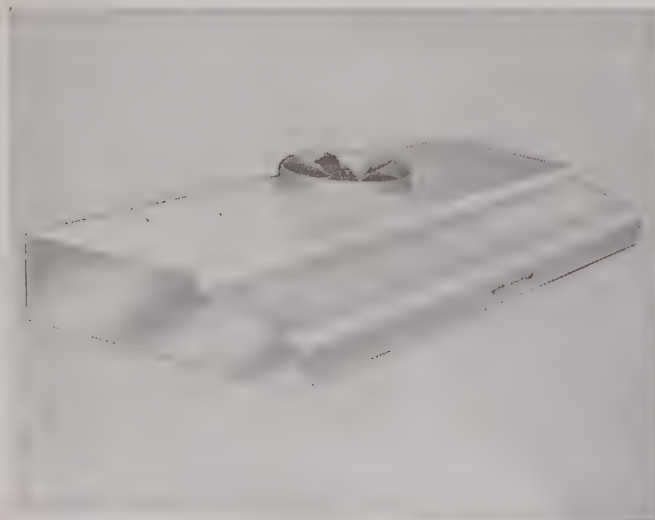
Rang



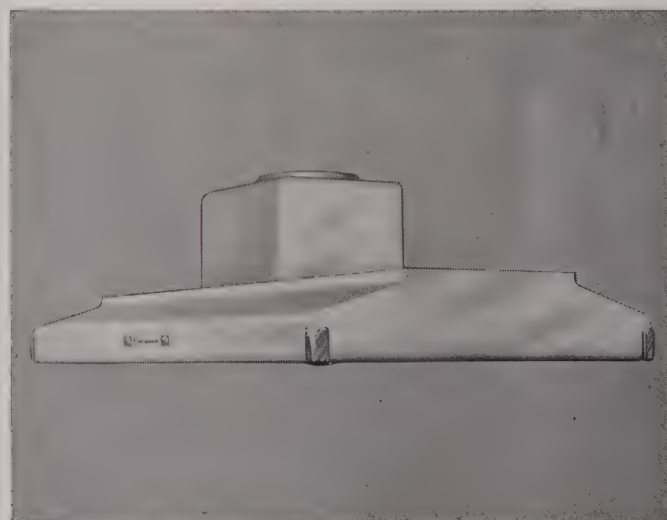
RANGAIRE UC 600 The ultimate in kitchen ventilation with exclusive horizontal-type exhaust unit contained completely within the hood. Double recessed lights, extra large washable aluminum foil filter and convenient push-button controls. Highest efficiency under most exacting conditions. Designed for utmost ease in installation.



RANGAIRE UC 2 Popular favorite for luxury kitchen ventilation. Beautiful, long-lasting baked enamel finish, powerful squirrel cage exhaust unit with automatic backdraft damper and permanent, washable aluminum foil filter. Recessed frosted glass lights, and fingertip push-button controls add the final touch of luxury. Easily installed.



RANGAIRE UC 656 Decorator designed to beautify any kitchen yet economically priced, the 656 has many of the luxury features of the more expensive makes. Wipe-clean baked enamel finish, washable aluminum foil filter, recessed frosted glass lights. Full 8" exhaust fan removes heat and cooking odors rapidly and efficiently... Easy installation.



RANGAIRE ISLAND-TYPE UC 2 Designed to meet the ever increasing demand for under-cabinet island installation, with all of the luxury features of the standard UC 2, this smart-looking hood comes plain as shown or with scalloped-edge trim. A perfect design element for the pace-setting kitchen this beauty is available in all Rangaire Color-Mates.

BRINGS YOU IN KITCHEN VENTILATION ...

RANGAIRE

with the "built-in flexibility" that every builder needs ... and the consistent high quality that every builder wants — regardless of price.

No matter what price home you plan to build, there is a Rangaire hood to fit your need ... and a price to fit your budget. Nationally advertised, Rangaire's consistent high quality lends added charm and visible sales appeal to your home.

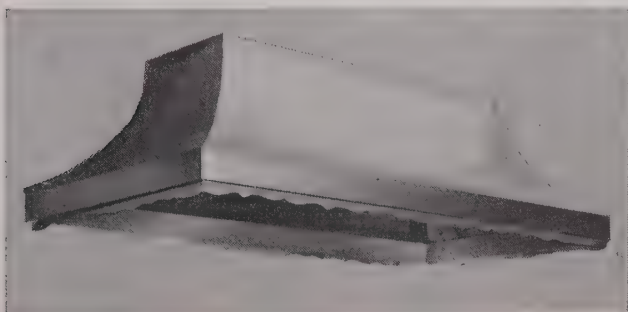
COLOR FLEXIBILITY A must for today's homebuilder. Rangaire Color-Mates match or mix with all major appliance colors. Standard colors are coppertone, antique copper, white, and stainless steel.

SIZE FLEXIBILITY Here's real help for the builder. Rangaire

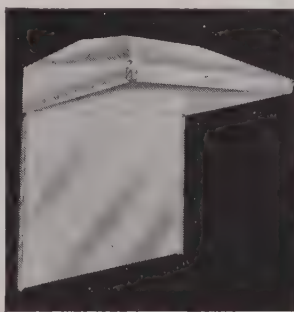
manufactures all popular sizes up to 42" as standard, and will fill any odd size requirements on request.

PRICE FLEXIBILITY Rangaire meets all comers with a right-price hood for mass builder economy to custom-designer, and the Rangaire quality is always there.

DESIGN FLEXIBILITY From standard to custom — Rangaire has the right style hood for your home. Under-cabinet, Island-type, Free-standing, are all standard with Rangaire. Custom designs built to your specification. See your Rangaire dealer today ... you'll be glad you did.



RANGAIRE IMPERIAL This exclusive, ceiling-installed masterpiece offers true "style magic" for the really deluxe kitchen. Squirrel cage exhaust, washable foil filter, and recessed frosted glass lights.



MODELS 3 AND 41. Free-standing. Deluxe 41, squirrel cage exhaust, with filter. Model 3, swing-down fan.



RANGER 110 Low-cost efficiency for ceiling or cabinet. Squirrel cage exhaust. Washable foil filter.

NEW!

Important News—from Rangaire Builder-Engineer Research

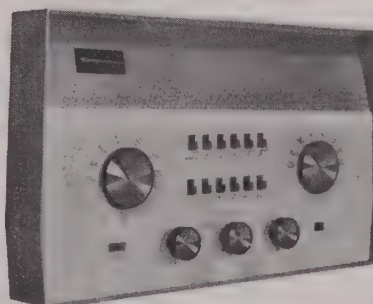
Now in limited production

Rangaire RI-95

AM → HI-FIDELITY RADIO INTERCOM
FM

All new in design and unquestionably the finest Hi-Fi, AM-FM Intercom system on the market. Competitively priced. Exclusive Power Transformer feature for the ultimate in High-Fidelity and longer life.

- 5-Watt Amplifier
- 15-Tube Performance
- No Drift Feature
- No Hum or Feedback



Write for further information and free literature: Rangaire, Cleburne, Texas. Dept. H-1

SURFACE MOUNTED DOOR

Hardware

PATENTS PENDING

SURFASETTM

For the newest concept in door design ...
the newest in hardware styling



The combination of surface-set interior doors (set over the openings rather than in them) and new SURFASET Door Hardware can bring many benefits. Material costs can be reduced because no wood jambs or finish trim are necessary. Time is saved because no mortising or planing of doors is needed. This makes factory-finished doors practical. Severe testing has proved SURFASET Hardware suitable for dry, plastered or paneled walls. Hardware is not handed. Fits single stud, double stud or panelized construction; any wall thickness; and any door thickness down to 1".



With SURFASET Hardware, the latch mounts in the wall. The strike is surface mounted on the door. The hinges are surface mounted on door and wall.

Home buyers will like modern, "clean" appearance, straight push-pull action with no turning of knobs, and self-closing action like a refrigerator latch. No. 3030 (illustrated at left) with Privacy Lock. No. 3000 without Privacy Lock. Accessory, No. 3700 SURFASET Pull Set.

Write for free full color — four-page booklet (Form No. H-141) to Stanley Hardware, Division of The Stanley Works, Dept. H, 49 Lake Street, New Britain, Conn.

AMERICA BUILDS BETTER AND LIVES BETTER WITH STANLEY

STANLEY

REG. U.S. PAT. OFF.

This famous trademark distinguishes over 20,000 quality products of The Stanley Works—hand and electric tools • drapery, industrial and builders hardware • door controls • aluminum windows • stampings • springs • coatings • strip steel • steel strapping—made in 24 plants in the United States, Canada, England and Germany.



DALE FORSBERG
Minot, North Dakota



ANDY PLACE
South Bend, Indiana



BOB CLARK
San Rafael, California



DAN NARODICK
Seattle, Washington

These 4 builders show

16 ways
to build more
house for the
money with
DFPA-QUALITY TRADEMARKED
FIR PLYWOOD



16 WAYS TO BUILD
MORE HOUSE
 FOR THE MONEY



Plywood construction = savings of over



DALE FORSBERG
 Minot, North Dakota

"We use plywood wherever we can. It's a real cost-cutter. Customers like it, too. Sales are up. Complaints down."

Time is money for Dale Forsberg of Minot, North Dakota. That's why he uses virtually all-plywood construction in 80-100 homes he builds per year in the \$17,000-23,000 price range. Plywood builds a better quality home, yet by capitalizing on its labor-saving advantages and using it to do two jobs in one operation—like siding-sheathing and subfloor-underlayment—he saves \$888 per house. Savings are passed on to home buyers in the form of extras giving the builder a competitive sales edge. Homes are often sold before the foundations are poured.

Every phase of the Forsberg operation is carefully planned and scheduled using specialized crews who rotate from house to house. Here is how cost savings with plywood break down on a typical unit.

1. 3/8" PlyScord® roof sheathing	\$202.00
2. Leaving plywood roof deck and rafters exposed at the eaves	126.00
3. Exterior plywood siding applied to studs without sheathing	275.00
4. 2•4•1 plywood subfloor-underlay with spline joint	225.00
...plus additional savings in overhead because plywood saves 10 days construction time per house	60.00
Total:	\$888.00



+ careful work schedules

\$800 per house for Forsberg, Inc.

1

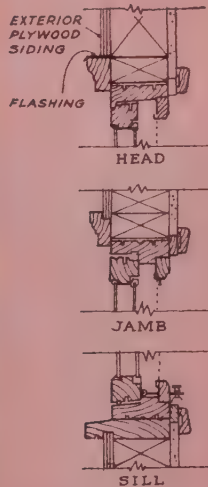
PlyScord® sheathing halves labor, forms solid deck for built-up roof

Forsberg uses PlyScord grade plywood roof decks for built-up roofing—at a savings of \$202 per house over the cost of boards. The plywood goes down much faster, forms a stronger, tighter deck for the finish roofing. It requires less nailing and fitting; cuts down on waste. Panels $\frac{3}{8}$ "-thick are used over rafters spaced 16" o.c.

2

Smooth underside of plywood deck is exposed, eliminating soffits

Simply by leaving rafters exposed at the eaves, Forsberg saves another \$126 by eliminating both time and materials required to install soffits. He says this is possible because the painted underside of the plywood roof deck is attractive "as is" without boxing-in. He uses A-C grade Exterior plywood, good face down, for all parts of the roof deck exposed to the weather.



3

Single thickness of Exterior plywood serves as both siding and sheathing

Conventional wall sheathing is completely eliminated by applying either Texture One-Eleven® (vertical grooved panels) or $\frac{1}{2}$ " Exterior plywood and battens directly to the studs. Savings: \$275 per house. Plywood combined siding-sheathing has ample bracing strength and meets FHA requirements.

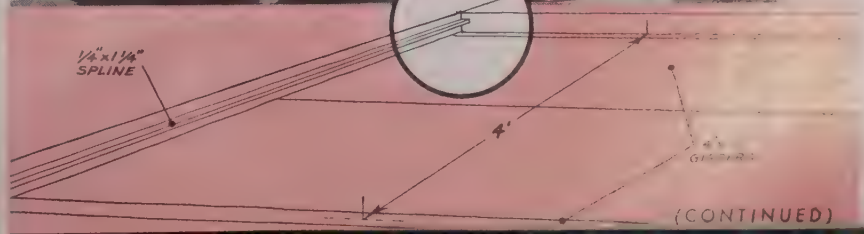
Look for the DFPA-quality trademark on all plywood you buy

4

New idea in floor construction uses 2·4·1® plywood with a spline joint

Savings of \$225 per house are made by using 2·4·1 (1 $\frac{1}{8}$ "-thick combined subfloor-underlay panels) over girders on 4-foot centers, using splines instead of 2 x 4s to support panel edges. The system saves time and materials, eliminates need for additional underlayment for resilient flooring. It presents an attractive and uncluttered basement ceiling highly popular with buyers.

For more information about plywood sheathing, siding or subflooring, write Douglas Fir Plywood Association, Tacoma 2, Washington.



(CONTINUED)

4 BUILDERS SHOW
16 WAYS TO BUILD
MORE HOUSE
FOR THE MONEY

You'll be using factory like these

NAHB South Bend Research House shows 4 ideas for tomorrow's house you can use today



The South Bend Research House was sponsored by NAHB Research Institute to investigate new ways to build better for less. It was built by Andy Place (above), Place & Co., Inc., South Bend. Consulting Architect: Herman York. Both also serve as Research Institute trustees. Coordinating work for the NAHB Research Institute: Ralph Johnson, director and John M. King, assistant director.



Stressed-skin roof panels made of DFPA-quality trademarked fir plywood and foamed styrene were installed in less than 2 hours. They combine the function of rafters, roof deck, insulation and finish ceiling in one easily handled component that replaces the many hand fitted layers of a conventional roof and ceiling. Panels (each 4 x 18 ft. and weighing only 190 lbs.) extend from ridge to eave and are joined with splines so that the plywood facings butt to each other. Strength is provided by the $\frac{1}{4}$ " fir plywood top and bottom, with foam plastic used for insulation and as a spacer between the skins.

Look for the DFPA-quality trademark on all plywood you buy



made fir plywood components sooner than you think



6

Plywood box beams act as the main roof support, have $\frac{3}{8}$ " fir plywood skins nail-glued to 2x4 top and bottom chords and stiffeners. Projecting (or recessed) end stiffeners form tongue and groove joints over bearing partitions. Advantages of fir plywood box beams include high strength-weight ratio, design freedom, dimensional stability, easy-to-finish surfaces.



7

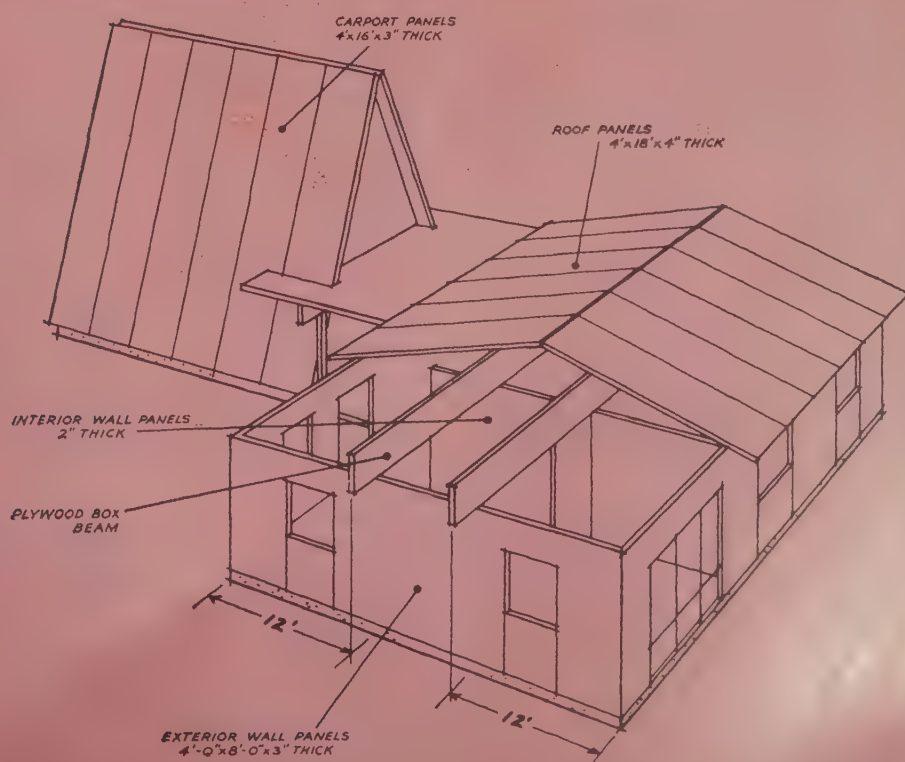
Exterior wall panels were erected in 3 hours, 20 minutes. Outer face is $\frac{1}{2}$ " "brushed grain" plywood with inset redwood battens; inner face is $\frac{1}{4}$ " fir plywood. Foamed styrene core gives panel a total thickness of $2\frac{3}{4}$ " and a "U" value of 0.1. The individual panels are tied together with splines and a continuous top plate shaped to conform to roof pitch.



8

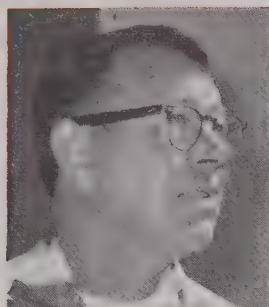
Carport, built by hinging foam-core fir plywood panels together prior to erection, cost some \$400 less than conventional semi-enclosed carport. It demonstrates cost-cutting advantages of components as well as new building forms they make possible.

Cutaway shows how plywood components permit house to be assembled with relatively few big parts, rather than built with countless small pieces.



(CONTINUED)

The extra quality of Builder Bob Clark



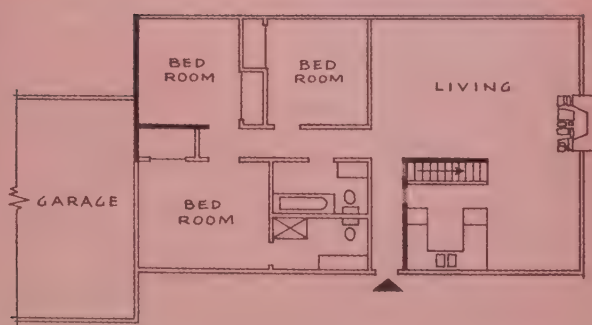
BOB CLARK
San Rafael, California

"Solid basic construction is a 'must' in \$30,000 homes. To us that means DFPA plywood. It's the best money can buy."

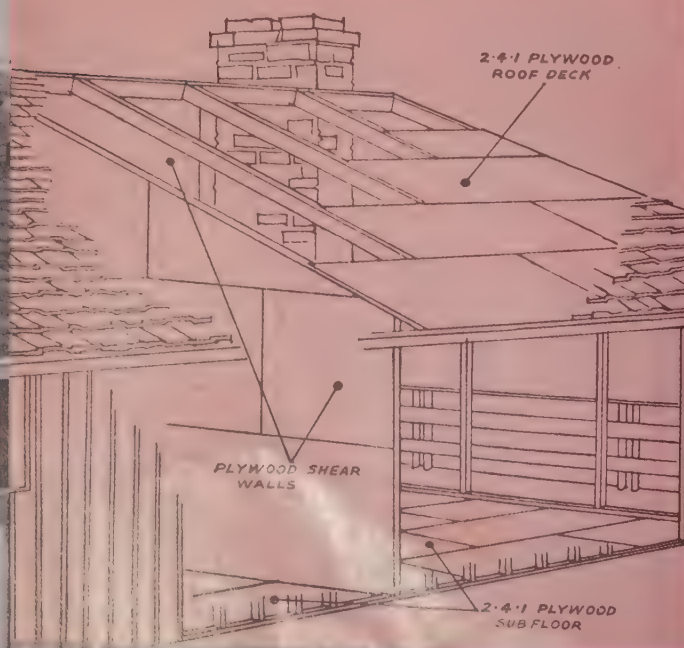
Bob Clark has found today's second-time home buyers a lot more sophisticated about basic structural materials—especially with 2-level homes perched on steep lots in Northern California's earthquake territory. Plywood's extra strength can be just as important as good design, or a spectacular view—all of which are featured in Clark's semi-custom Madera Gardens homes in Corte Madera. He describes his homes structurally as good looking reinforced plywood boxes that can't wrack or twist.

Clark's homes contain over 2,000 square feet and range in price from \$23,500 to \$30,000—or about \$11 a square foot, lot included. Plywood saves about \$200 per house, largely due to lower installation costs.

For more information about fir plywood structural applications, write Douglas Fir Plywood Association, Tacoma 2, Washington.



Typical upper level floor plan. Heavy lines show location of plywood shear walls.

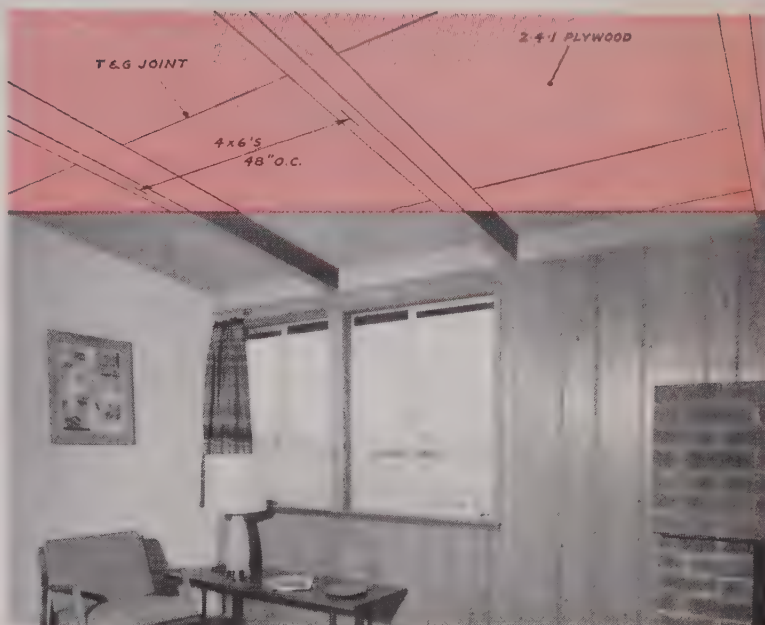


fir plywood construction helps sell the upper-income market



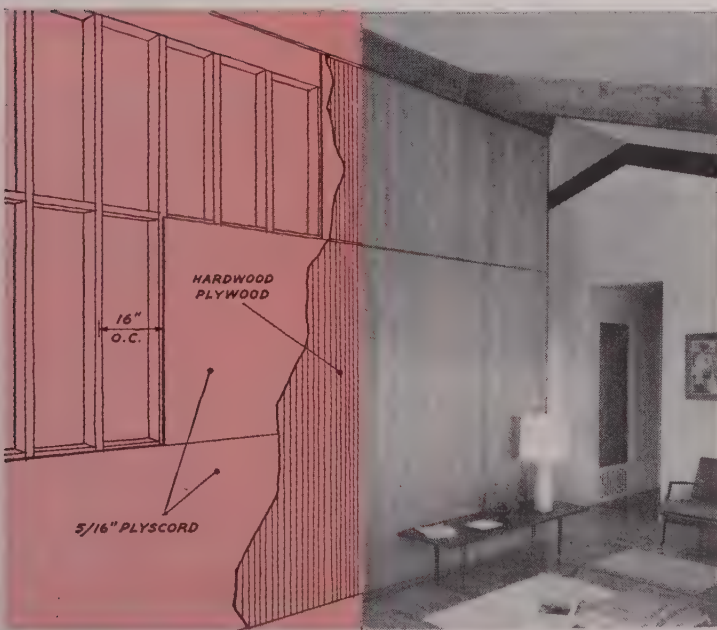
9

2-4-1 Subflooring is used for both oak-strip covered main level and semi-finished basement. The $1\frac{1}{8}$ " thick panels are laid over beams 48" o.c. Panel edges are tongue and grooved to eliminate blocking. Clark, who switched from 2 x 6 car decking, reports plywood is superior structurally and costs about \$100 less installed.



10

2-4-1 Roof decking is basically a modification of the floor system. Panels serve as both roof sheathing and finish ceiling. Panel edges between beams are tongue and grooved, with eased edges. As with subflooring, the in-place cost of plywood construction comes to \$100 less than car decking; material costs are the same, but plywood can be installed in half the time.



11

Plywood shear walls eliminate bracing on all other walls and permit use of large glass areas on the view side. Used in pairs (see floor plan), they work with the horizontal plywood floor and roof diaphragms in resisting high wind or earthquake loads. At least one shear wall on every home is continuous from foundation to roof.



12

Texture one-eleven is used either as the basic side wall covering or as an accent for other materials. Panels are applied directly to the studding without sheathing and are given two coats of a heavily pigmented shake and shingle stain. In the house above Texture One-Eleven is used on the upper level carport to relate it visually to the main structure.

4 BUILDERS SHOW
16 WAYS TO BUILD
MORE HOUSE
FOR THE MONEY

How one tract builder —and saves \$300

13

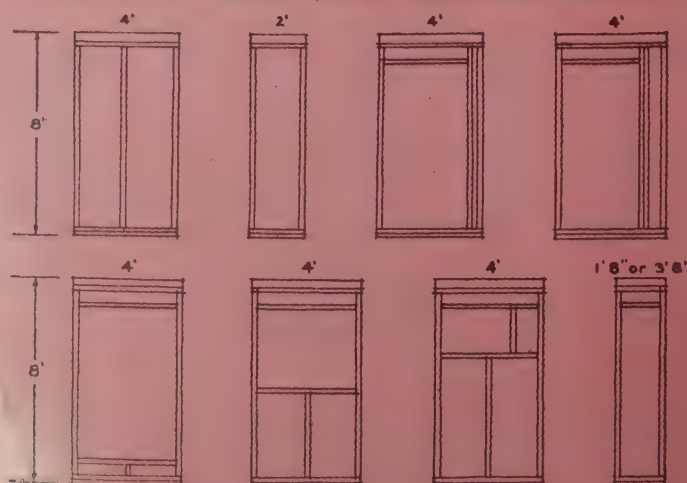
Pre-fab plywood wall sections for the 1,000 sq. ft. houses being built by Hebb and Narodick are installed in an average of 45 minutes. The components are tipped into place, butted and nailed together. A continuous double 2 x 6 header ties the sections together.

Hebb and Narodick buy the Lu-Re-Co components from Blackstock Lumber Co., Seattle, who make deliveries to meet work schedules. Construction is completed in 30 days or less in contrast to the 6-8 weeks formerly required.

The Hebb and Narodick homes are a modified version of the "Madison", one of the new "Emblem" homes designed by DFPA for either Lu-Re-Co or conventional construction. For more information write Douglas Fir Plywood Association, Tacoma 2, Washington.



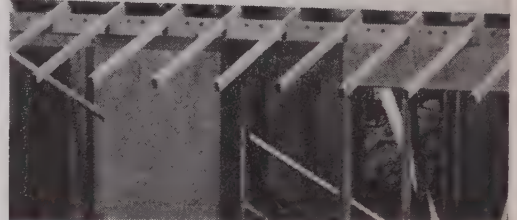
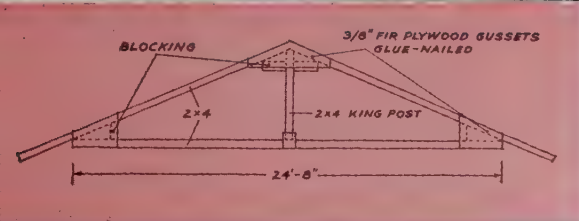
Hebb and Narodick, Seattle, Wash., have just completed one 41-home tract using Lu-Re-Co plywood components, and are using them on another 106-home tract just getting under way. Dan Narodick (above) is partner in charge of the projects. Al Curran is superintendent.



8 basic panels are used, with $\frac{3}{4}$ " PlyScord® sheathing over 2 x 4s, 24" o.c. Window frames are installed by fabricator. Sections rest on $\frac{3}{4}$ " fir plywood sole plate and are tied together by a continuous double 2 x 6 header.

uses Lu-Re-Co plywood components per house in labor costs alone

Roof construction is fast and easy with plywood sheathing over pre-fab trusses and gable ends



14 Kingpost trusses eliminate load bearing partitions, save 16 man hours per house. Two men take less than 4 hours to install the 24 trusses used on each house. Nail-glued fir plywood gusset plates fasten truss members securely... provide added stiffness and rigidity.

15 Pre-fab gable ends are installed by a two-man crew in 20 minutes—compared to four hours required for piece-by-piece construction on the job. Units are basically kingpost trusses covered with $\frac{3}{8}$ " Exterior fir plywood and battens.

16 PlyScord® roof sheathing takes between one third and half the time required to do the job with boards or shiplap. Panels, $\frac{1}{2}$ " thick, are applied over trusses on 2-foot centers. Plywood sheathing saves on nailing, reduces waste, provides superior lateral rigidity.

WE URGE YOU TO SPECIFY ONLY DFPA TRADEMARKED PLYWOOD because...

The DFPA-industry quality control program assures satisfactory performance of the plywood you buy.

DFPA conducts product research and development to give you the best material for the job—and up-to-date information about how to use it.

DFPA works with building codes to clear any road blocks which might prevent you from using plywood to best advantage.

DFPA national advertising programs help pre-sell your customers on plywood construction, as well as enlarge the new home market.

In view of these activities in your behalf, we again urge that you buy only DFPA-trademarked plywood.

DOUGLAS FIR PLYWOOD ASSOCIATION, TACOMA, WASHINGTON
—a non-profit industry organization devoted to research, promotion and quality control



Since 1934, the DFPA-industry quality control program has served customers and specifiers by providing unbiased and authoritative certification of fir plywood quality.

Only plywood which bears the DFPA trademark is manufactured under the industry-wide Douglas Fir Plywood Association quality control program. Always look for the letters "DFPA"



Can be mixed and blended as smoothly as a cocktail

If your specifications require smart combinations, try blending the knobs and escutcheons of Yale Series 5200 and 300. You have a choice of several metal finishes and decorator-style ceramics. They go together marvelously all

through the house. Moderate in cost, too.

And while specifying Yale locksets, why not go all the way. Yale sliding door hardware, window hardware and other household items have the same

built-in quality and smartness as the locksets. The Yale & Towne Manufacturing Co., Lock and Hardware Division, White Plains, N. Y.

YALE & TOWNE

YALE—REG. U. S. PAT. OFF.

HOUSE & HOME



This attractive floor is Johns-Manville Terraflex in Opal and Gold Terrazzo style with insert of Cardinal Red feature strip.

Johns-Manville Floor Tile

gives homes a "custom look"... provides the
carefree floors home buyers want ...
makes homes easier to sell

You can dramatize the floors of your homes because there's no limit to the custom-design effects you can achieve with Johns-Manville floor tile.

In both Johns-Manville luxurious Terraflex® vinyl asbestos tile or attractive Johns-Manville asphalt-asbestos tile there's a color, a pattern, a style for any room. By varying floor designs you can personalize each house to give it a custom-built appearance.

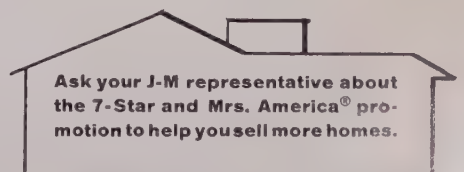
Johns-Manville Terraflex tile

provides carefree flooring for homemakers. It saves work . . . saves scrubbing . . . defies greases, oils and alkaline moisture. Available in Marbleized, Cork, Terrazzo and Metallic styles, in over 40 permanent colors for the creation of striking and lovely floors of your own ideas or designs by your decorator.

Johns-Manville Asphalt-Asbestos tile is an all-purpose flooring that provides colorful, durable flooring at low cost. Available in

Marbleized, Cork and Terrazzo styles in a wide range of decorator colors.

For complete information and color chart, write to: Johns-Manville, Box 158, New York 16, New York.



8 Reg. U. S. Mrs. America, 1964

JOHNS-MANVILLE





round tones, deep tones, sharp tones, flat tones.

copper makes brass, bells and bugles, trumpets and trombones.

copper makes bronze for a beethoven bust.

**COPPER
MAKES
BEAUTIFUL
MUSIC**

and copper makes wire. wire, wire, printed wire.

wire for radio, wire for stereo. wire for telephony and tv.

music. modern music. copper's the conductor.

without copper . . . how still the air.





For information about Copper and Copper Alloys, write Copper & Brass Research Association, 120 Lexington Avenue, New York 17, N. Y.



LOOK

The eyes of Home Buyers all over America will be focusing on this — one of the most dramatic and colorful advertisements the flooring industry has ever seen. Just a part of Kentile's continuing program to consumers, this spectacular insert will appear in the October issues of HOUSE BEAUTIFUL, HOUSE AND GARDEN, and LIVING FOR YOUNG HOMEMAKERS. Look — and see for yourself — how Kentile Vinyl Floors are being presented to your outstanding prospects! Don't think beautiful floors belong in your homes?



Another Kentile Vinyl First . . . and an exclusive! Solid Vinyl Woodgrain® Planks shown here in Teak and Birch. Gives you all of wood's natural beauty . . . with no dust-collecting cracks . . . no refinishing costs . . . and virtually none of the care! Wall Base is long-wearing Beige KenCove.

KENTILE VINYL

ON TODAY'S SMARTEST

FLOORS

Exclusive Woven Tones™ . . . for the luxury look of broadloom at one-quarter the cost, or less! This economical Vinyl Asbestos style combines Mesa Tan Tile with Beige KenCove Wall Base.

Grecian Marbles in Kentile Crystalite Vinyl Tile. Ionian Gold and Theban Jade Tile recreate the centuries-old look and depth of classic marble. Bright Gold Feature Strip and Black KenCove Wall Base complete the mood.



Tile floors that go everywhere . . . fit every purse!

What will a vinyl floor cost you? Only Kentile lets you decide so easily—with three complete lines of vinyl flooring to choose from. And all three are beautiful to own . . . long on wear . . . and amazingly easy to maintain!

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on Buff

Gold-
Gray

Gold-
Topaz

PRESENTING

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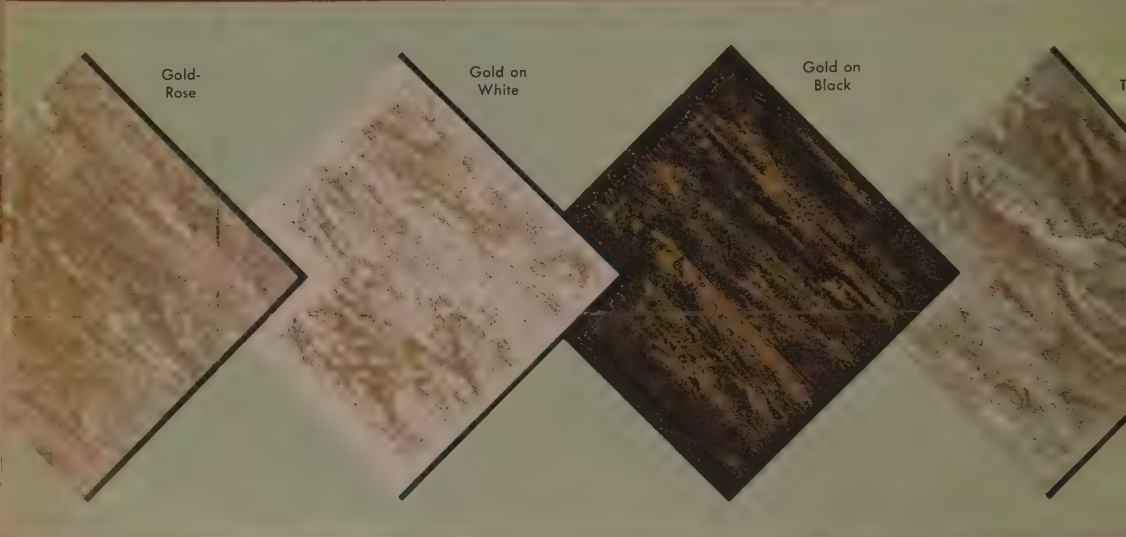
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New Exclusive! Metal Leaf™ highlighting the burnished beauty of copper, in Kentile Solid Vinyl Tile. Floor is Copper on Buff with Bright Copper and Black Feature Strip. Wall Base is Beige KenCove®. See all 8 Metal Leaf colors on back page.



Roundup:

Mortgage money expected to ease early in '60

The mortgage pinch is beginning to hurt (*see p 54*). The full effect won't hit builders until fall but some mortgage men are already calling this the worst post-war mortgage crisis. Only glimmer of sunshine is a prediction that there should be easier money after the first of the year—but at the same high price.

Don't count on an FHA interest rate boost soon. The discounts you pay for your FHA money probably will go even higher before the rate is changed. Main reason: FHA is not expected to act while Congress is still kicking housing legislation around and while FHA insurance authority shrinks to almost nothing. A rate boost is obviously justified. Discounts are up to 6 points in the South and West and are still going up. When FHA raised its rate from 4½% to 5% in November, 1956, and from 5% to 5¼% in September, 1957, discounts in the South and West averaged 5 points.

Did a miscalculation cost housing legislation it needs?

Organized homebuilders outsmarted themselves over the 1959 housing bill. As a result, instead of getting a sizeable package of favors from Congress, they may get next to nothing because of the Presidential veto (*see p 46*).

When the Herlong substitute bill was offered in the House by Southern Democrats with Administration support (*June, News*), NAHB spurned it despite personal pleas from HHF Administrator Norman Mason and FHA Commissioner Julian Zimmerman. The Herlong bill kept all the goodies for builders involving FHA (eg lower down payments, higher mortgage limits, easier trade-ins, higher interest for rental 207s) that made the banking committee bills so enticing. But the Herlong bill would have made public housing and urban renewal authorizations subject to later appropriation of money. This would have had the effect of removing control of these costly programs from housing subcommittees that are stacked with welfare-oriented legislators and given control to tight-fisted, conservative appropriations committees. Builders feared (so NAHB executives now say) that this would lead later to appropriations committee control over FHA authorization to insure—a worry that most experts find far fetched because FHA operates at a profit. Anyway, builders lobbied hard against the Herlong measure. When the House voted it down by a narrow 203-177 margin, some leading NAHB figures modestly took credit for the achievement. (Almost all other housing industry groups backed the Herlong measure.)

Deputy HHF Administrator Walter Rosenberry gave NAHB leaders including President Carl Mitnick and Executive Vice President John Dickerman, who were present, a pointed reminder of this boomerang when he spoke for Mason at the Western Builders' Conference in San Francisco (*see p 49*). "The Administration would have accepted a reasonable compromise," he noted. "If the Herlong bill had passed, the bill would have been signed. The Herlong bill had most of the things in it builders are interested in."

Most of the things the builders want are not controversial. But politics being what they are, there is almost no chance Congress will vote them except tied into a package of costly programs Eisenhower will not approve.

FHA directors get civil service status

FHA has reluctantly put its field office directors under civil service. The idea was the Civil Service Commission's, not FHA's. CSC has been trying to force the action for nine years. It insists this will give career employees an added incentive in the form of another step on the promotion ladder.

FHA brass are dubious. They fear it will make field office staffs less responsive to the Presidentially-appointed FHA commissioner. It is almost impossible to fire a man under civil service—even if the chief complaint is something like incompetence. When the problem is bucking Washington's policies—a perennial FHA sore spot—the situation will now be hopeless. The new deal means builders and mortgage men, the people who have to deal with the local director, will have to live with him no matter how inept they may regard him.

KEEP AN EYE ON: Some West Coast builders are prophesying more scandals will break out involving western savings and loan men acting as silent partners with homebuilders. The Home Loan Bank Board has cracked down on such situations in the past, when it gets evidence. What galls builders, they say, is that S&L officers are reaping the lion's share of profits "while we take most of the risk." Enough insiders are talking in amazed tones about kickbacks in the well padded Capehart Act military housing program to suggest some congressional committee might find the subject worth probing.

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'Extravagant, inflationary, unfair...'

President Eisenhower's veto assails costly programs tacked to housing bill most industry groups disliked

For the first time, housing has run into a veto. The Democrat-sponsored 1959 catch-all housing bill, even after conservative House and Senate leaders trimmed it to three-quarters of a loaf, remained so full of costly spending programs and so loaded with new programs of doubtful need that President Eisenhower sent it back to the Senate on July 7, unsigned. In his strongest pronouncement yet on housing policy, he branded the Democratic bill so "extravagant, inflationary, unfair" that "it would do far more damage than good." He called much of the authorized spending "unnecessary." He warned that the bill would "tend to substitute federal spending for private investment" (*see text, next page*).

Where does this leave housing? Not, as NAHB President Carl Mitnick immediately charged, in danger of plummeting only 1-million units this year. Not even (as Mitnick watered down his cry of alarm 24 hours later) in much danger of dropping from a rate of 1.4-million to 1-million starts in the next 12 months.

Soaring money rates would have cut back housing (but only gradually) even if the 1959 bill had become law. With VA interest boosted to 5¼% (*see p 54*), few builders felt that their own near-future output would be much affected by the possible loss of the housing bill goodies.

Housing faces a tense midsummer while Congress tries to work out compromise legislation. Several possibilities emerged (*see below*) but almost nobody thought that Congress 1) could override the veto or 2) would adjourn without voting FHA enough authorization to stay in business. The same can be said for other expiring, non-controversial programs like FHA Title I repair loans, military housing, and the Voluntary Home Mortgage Credit Program.

The veto—Eisenhower's fourth rejection of a major bill this session—was not unexpected. Both HHP Administrator Norman P. Mason and Budget Director Maurice Stans had publicly urged it on the President.

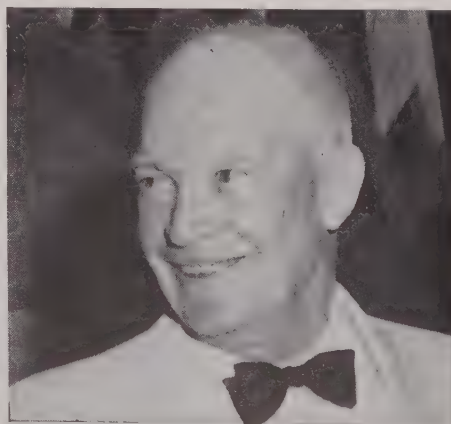
What was in it?

To understand why, consider not only the wholesale tinkering with old programs (mostly acceptable to the White House), but also the dozen new directions—all costly—in which housing was pointed by the bill that finally emerged from conference June 18:

FHA: down payments were cut in the middle brackets by switching to this new loan-to-value ratio: 3% down to \$13,500 of FHA appraised value (same as now), 10% from \$13,500 to \$18,000 (a substantial cut), 30% above \$18,000. Moreover, the maximum loan on one-family homes was boosted from \$20,000 to \$22,500. Sample results: down payment on an \$18,000 house would have dropped from \$1,400 to \$900; on a \$25,000 house from \$5,000 to \$3,000; on a \$28,000 house from \$8,000 to \$5,500. (The last would be about even with an 80% conventional loan.) Maximum terms were boosted from 30 to 35 years for both VA and FHA (Secs. 203, 220, 222, 809, and 810).

A new trade-in provision would have let builders and realtors avoid paying closing costs twice.

Maximum mortgages on Sec 203(i) low-priced housing were boosted from \$8,000 to \$9,000 and existing homes were made eligible. Conferees dropped a Senate provision to bar the extra ½% service charge on 203(i)s that makes such pint-sized loans palatable to lenders. FHA was empowered to accept VA inspections for new construction



PRESIDENT EISENHOWER

For a disappointing bill—a veto

loan-to-value ratio loans under Secs 203(b) and 203(i).

Rental housing got a shot-in-the-arm via these higher mortgage limits for Sec. 207:

	PRESENT LAW		NEW LIMIT	
	per room	per unit	per room	per unit
Garden type ..	\$2,250	\$8,100	\$2,850	\$9,000
Elevator type..	2,700	8,400	3,315	9,500
High-cost area increase	1,000	.....	1,250	.....

Maximum mortgages for 207 projects were upped from \$12.5 to \$20 million, and the interest rate ceiling was raised from 4½% to 5¼%. Conferees rejected boosting the loan-to-value ratio from 90% to 95%.

Co-operative housing got an astonishing boost. Sec 213 interest ceilings were upped from ½% to 5¼% on management-type co-ops and from 5% to 5¼% on sales-type.

Maximum loan was raised from 90% of replacement cost (95% if half of cooperators are veterans) to 97%. Maximum loans were boosted from \$12 to \$20 million. Both community and commercial facilities were approved for investor-sponsored co-ops; only community facilities were approved for sales co-ops. Mortgage limits were raised and veterans' preference abolished:

	PRESENT LAW		NEW LIMIT	
	per room	per unit	per room	per unit
Garden type, non-veteran	\$2,250	\$8,100	\$2,500	\$9,000
Garden type, veteran	2,375	8,550	2,500	9,000
Elevator type, non-veteran	2,700	8,400	3,000	9,400
Elevator type, veteran	2,850	8,900	3,000	9,400
High-cost area increase ...	1,000	.....	1,250	.....

FHA mortgage insurance authorization was boosted by \$5 billion expiring June 30 (which is now useless) and \$5 billion more for the new fiscal year (which would not have been nearly enough if FHA had to redeem its \$4 billion of outstanding agreements to insure out of it).

Urban renewal Sec 220 was so dramatically sweetened that it might have begun to pull sizeable numbers of builders into the program (which, of course, would have siphoned off mortgage funds from other housing). Sec 220 was given the same easier down payments and bigger loan ceiling as 203. For rental projects, dollar limits per room and per unit were boosted to the 207 level. Maximum mortgages on rental projects went up from \$12.5 to \$20 million. Even more significant, exterior land improvements were permitted to be included in mortgages without being computed as part of room or unit cost limits.

Relocation Sec 221 housing—which Congress up to now has so restricted to cheap new houses that few have been built—got much more realistic cost limits:

	PRESENT LAW		NEW LIMITS	
	Normal areas	High-cost areas	Normal areas	High-cost areas
1-family..	\$9,000	\$10,000	\$10,000	\$12,000
2-family..	.....	.....	18,000	20,000
3-family..	.....	.....	25,000	27,500
4-family..	.....	.....	32,000	35,000

A new 221 rental program was set up for profit-sponsors at 90% of replacement cost (including profit and risk allowance). Conferees rejected proposals to extend 221 to families displaced within the environs of a community with a workable program.

FHA Title I repair loans, which expire Sept 30, were extended another hand-to-mouth year to Oct 1, 1960. Maximum mortgages for servicemen's Sec 222 housing were raised from \$17,000 to \$20,000. Homes built under 203 were made eligible for transfer to 222.

Fanny May: Bigger FHA and VA loans were made eligible for purchase by the government secondary market—a belated recognition that costs have risen. For FNMA's secondary market program, the purchase limit was raised from \$15,000 to \$20,000; for special assistance it was boosted from \$15,000 to \$17,500. But the much denounced requirement that FNMA buy special assistance mortgages at par was reinstated (it lapsed last Aug 7). Maximum fees under FNMA

special assistance were sliced from 1½% to 1%, and the ceiling on fees collectable at time of commitment was cut from ½% to ¼%. Existing homes were made eligible for FNMA standby commitments in its secondary market program—an amendment eagerly sought by realtors. FNMA was pushed into mortgage warehousing. It got power to make short-term loans on pledged FHA or VA mortgages—a feature much desired by builders. But conferees stipulated FNMA might make such loans only “where financing for warehousing and interim financing is clearly not available on reasonable terms and conditions.” FNMA was given \$37.5 million under special assistance to buy Sec 213 co-op loans. Of this, \$25 million was reserved for consumer co-ops, \$12.5 million for builder-sponsored co-ops.

Savings & loans: Federal S&Ls were authorized to invest up to 5% of accounts in loans to finance land buying and developing for housing—providing the S&L has reserves of at least 5%. Federal S&Ls were empowered to use 20% of assets to buy participations in one- to four-family homes without regard to existing area restrictions. The total of such participations plus other loans and participations made under existing exceptions from area restrictions was limited to 30% of assets. But FHA and VA loans were excluded from the count.

Housing the elderly: two wholly new programs were set up. The first, reasonably non-controversial, created a new FHA Sec 231 offering 100% of replacement cost loans to non-profit groups building new housing, 90% for existing housing. The second, strongly opposed by Republicans, set up a \$50 million direct loan program at subsidized interest rates based on the controversial formula for college housing loans. Some of the give-away sting was removed by making the \$50 million hinge on an appropriation later. Capitol Hill experts figured there was no chance the House appropriations committee would act. Proprietary nursing homes were made eligible for FHA insurance.

Urban renewal: Democrats increased the rate of spending, but cut total authorization at the same time by raising dollar amounts and lowering the period over which they were available. For grants, \$900 million was authorized for two fiscal years. (The Administration had proposed a \$1.55 billion, six-year program which would cost only \$700 million the first two years.) URA was empowered to make temporary loans for land acquisition and clearance before loan-and-grant contracts are signed, provided local governing bodies approve. The long-standing limit of 12½% on loan funds used in any one state was killed. Moreover, URA was specifically prohibited from rationing funds by trimming project plans, was required to process applications on a first come, first served basis. Cities were permitted to count public improvements started up to five years before signing loan-and-grant contracts toward their one-third share of the cost of land write-down.

Public housing: A program of 45,000 units was approved (at a cost estimated by the Administration of \$875 million over 40 years). Additionally, about 100,000 more units could have been started, at Presidential discretion, but at a rate of not more than 35,000 a year. Local housing authorities got more power to set key income and rent limits, subject to PHA approval. Conferees rejected proposals to permit sale of public housing, or rental at market prices, to over-income tenants.

College housing: Another \$300 million was authorized for subsidized loans for fiscal 1959 and 1960, as against the Administration request for \$200 million (at higher rates) for 1959 and a loan guaranty and cash subsidy program in the Dept of Health, Education & Welfare for 1960. Even more controversial, a new college classroom loan program was created with a revolving fund of \$62.5 million, at subsidized interest rates.

Even before the conference report cleared Congress, it was generating controversy more bitter than housing has spawned in years. The conference committee itself ended in a rare three-way split. Three House Republicans, Gordon McDonough (Calif.), William Widnall (N.J.) and Perkins Bass (N.H.), blistered the final bill as “extravagant . . . financial legerdemain.” Two Democratic senators, Joseph Clark (Pa.) and Paul Douglas (Ill.), protested Congress had leaned over too far to accommodate the President, notably on urban renewal spending. Clark, in a floor speech clearly aimed at Senate Majority Leader Lyndon Johnson (D, Tex.) charged that the party leadership strategy of cutting housing and other spending bills to try to make them “veto-proof” was blurring the party’s identity

and could cost it the Presidency in 1960.

Republicans, relishing the Democratic rift, hammered away at the housing bill’s cost. The speedup in urban renewal spending, cried House Minority Leader Charles A. Halleck (R, Ind.) “is known as saving money by spending it faster. A few more licks like this by the big spenders and they’ll save the country right into bankruptcy.” HHFA’s Norman Mason wrote Senate Minority Leader Everett Dirksen (R, Ill.) that the bill was “full of bonuses for big people.” Warned Mason: “It helps big builders by providing a market at par for mortgages for co-operative sales housing, elderly housing and other special programs. It helps big cities by requiring the federal government to accept

continued on p 49

WHY EISENHOWER VETOED THE 1959 HOUSING BILL

Excerpts from the President's message vetoing S. 57:

I had hoped to receive from Congress legislation that would further advance better housing for Americans within the limits of fiscal responsibility. To my disappointment, Congress has instead presented me with a bill so excessive in the spending it proposes, and so defective in other respects, that it would do far more damage than good.

1. The bill is extravagant and much of the spending it authorizes is unnecessary. Its spending authorizations total a minimum of \$2.2 billion—all of which would be available for commitment without further Congressional or Presidential action. The comparable budget recommendations of the Administration totaled \$810 million.

Its authorizations of \$900 million for urban renewal—telescoped into two years—are excessive.

Even though we have over 100,000 previously authorized public housing units as yet unbuilt, the bill would authorize 190,000 more.

A new program of direct federal lending authorized for housing for elderly persons when needs in this area can be adequately met by private funds invested under federal insurance. The college housing loan program would be continued with increased authorization at interest rates below the cost of money to the Treasury and a new program for college classrooms and related academic facilities at the same subsidy interest rates would be started. Although the amounts initially authorized for the latter program would be relatively small, the eventual demand for these loans would reach staggering proportions. To the extent that these and other programs merely displace private financing they lead to federal spending that is entirely unnecessary.

2. The bill is inflationary. The spending authorizations of S.57, taken together with other seriously objectionable provisions, would be inflationary and therefore an obstacle to constructive progress toward better housing. One of the most damaging effects of inflation is that it dries up the sources of long-term credit. There is perhaps no industry in the nation more heavily dependent on long-term funds borrowed at reasonable interest rates than the housing industry. We have made good progress in the fight against inflation but we cannot win that fight if we add one spending program to another, without thought of how they are going to be paid for, and invite deficits in times of general prosperity. No

one can gain from a fiscal policy of this inflationary type—least of all, the housing industry.

3. The bill would tend to substitute federal spending for private investment. Many provisions of the bill, instead of stimulating private investment, would drive private credit from areas where it is urgently needed.

The requirement that FNMA buy mortgages at par under its special assistance program, regardless of the price that these mortgages command in the open market, would have this effect. So also would the provision limiting the fees that FNMA may charge when purchasing mortgages. The provisions authorizing college housing and college classroom loans at subsidized interest rates, additional federal purchases of cooperative housing mortgages and a new program of short-term loans by the federal government on the security of mortgages would similarly substitute public for private financing.

4. The bill places needless limitations on FHA and contains provisions that would impair FHA’s soundness. Instead of removing the wholly unnecessary limit on the mortgage insurance authority of FHA, the bill would continue these important programs on an uncertain, hand-to-mouth basis. Through lower down payments and longer maturities the bill would introduce underwriting provisions of questionable soundness into a number of FHA’s loan insurance programs.

5. The bill contains provisions which are discriminatory and unfair. The way the bill is written a few large cities, by making early application, could tie up all the funds available under the urban renewal program. The Administration would be specifically prohibited from preventing this discrimination against our smaller cities which have not yet entered the program or which do not have large planning staffs.

Under present law cities can count streets and other local improvements, which they had already intended to construct, as a part of their share of costs of urban renewal. S. 57 would extend these credits retroactively to include such improvements made by cities up to five years before commencement of projects. As it is, the local cash contribution has averaged only about 14% of the cost of acquiring and preparing a project site for development. S. 57 would reduce such contributions further.

Luxury homes in Seaview Village feature Fabulous Foodarama!



SEAVIEW VILLAGE, by Builders Harry and Sydney W. Waxman, is a community of over 2,000 (will reach 3,000) one and two-family fully-detached and attached homes in Brooklyn, N. Y. The colony covers 215 acres, and is complete with schools, shopping centers and recreation facilities, including a 12,000-sq.-ft. swimming pool and yacht club. Seaview Village is the latest of over 8,000 dwellings the Waxman brothers have built in the New York area during the last 35 years. Many of these homes have Kelvinator-equipped kitchens and laundries.

"In designing and planning Seaview Village," says veteran builder Harry Waxman, "our architects and decorators catered to the desire of modern homemakers for carefree kitchens. That's why, among the attractive and useful appliances, we feature Kelvinator's Foodarama. Response to our kitchens with this glamorous refrigerator and freezer combination has been amazing. Prospective buyers, especially busy housewives, are always impressed with Foodarama's huge food capacity. They can see at a glance how this exceptionally well designed unit will save them miles of steps and hours of shopping."

"Foodarama's distinctive styling is the perfect complement to the atmosphere of gracious family living we have created at Seaview Village. It has been a very strong sales feature with today's value-conscious home buyers."

A 12-cu.-ft. deluxe refrigerator and a 6-cu.-ft. upright freezer all in one cabinet only 41" wide, 63" high, 25" deep!

Fabulous Foodarama lets you offer so much more kitchen convenience to home buyers. A deluxe 12-cu.-ft. refrigerator with 100% usable fresh-food storage, plus a 207-lb. family-size upright freezer—all in one smart and compact cabinet. Foodarama stands free, or builds-in easily for a clean, uncluttered appearance in your kitchens. Doors open flush with the cabinet, saving room on corner installations. Yet, for all the extra sales appeal, Foodarama actually costs less than a separate deluxe refrigerator and upright freezer. To start profiting with Foodarama's exclusive sales advantages—send for Kelvinator's special builder plan today.

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urban renewal applications in the order of application . . . No project can be rejected because of its size, so a few big cities could take all the funds allocated. The bill provides a whopping program of public housing in the face of troubles cities are having today to find suitable locations and in the face of the evident need to change from the institutional approach." Retorted Democrat Clark: "... probably the most bombastic language I have ever known a responsible government administrator to use."

In the end, the conference bill passed both Houses of Congress by margins short of the two-thirds majority necessary to override a veto. The Senate vote was 56-31, the House vote 241-177.

The measure lay on the President's desk long enough for many an industry trade group to take a stand. Realtors urged a veto. So did the US Chamber of Commerce and, somewhat guardedly, the US S&L League (it said housing needs no more "stimulants" now). Homebuilders, public housers, labor unions, and a delegation of 15 mayors pressured the President to sign.

What Ike asked instead

In his veto message, President Eisenhower urged Congress to pass this six-point housing bill stripped of new programs:

1. Wipe out the ceiling on FHA mortgage insurance authority entirely.
2. Extend FHA Title I repair loans "at least" through fiscal 1960.
3. Extend Capehart Act military housing (which expired June 30) for another year.
4. Continue VHMCP.
5. Replenish renewal grants and boost the local share of costs (as Eisenhower originally asked last January), and give college housing loans another \$200 million at unsubsidized rates.
6. Boost interest rate ceilings for FHA Secs 207 and 213.

NAHB President Mitnick immediately called this "very inadequate," complained about Ike's omission of lower FHA down payments, 35-year terms, bigger maximum loans and provision for housing the elderly. Majority Leader Johnson called the veto "ill-advised." But later he said he is still willing to "meet the President more than half way."

Sparkman calls hearing

The Democratic leadership made its first move a week after the veto. Sen John Sparkman (D, Ala.), chairman of the Housing subcommittee, announced hearings would be held later in July to consider the veto message. This indicated the majority leadership had decided *not* to attempt to override—though the subcommittee could still recommend it.

Sure also to be considered by the subcommittee was a new GOP bill, introduced in both Senate and House. Though containing a few more items than the President had asked, Republican leaders in both houses announced the Administration would support it. Administrator Mason told industry leaders this was indeed true. And there were hints the Administration would even accept some Democratic changes (i.e., a small amount of public housing).

Among other things the bill provided \$600 million for two years of urban renewal, \$200 million for college housing, \$10 billion more FHA insuring power, lower FHA down payments and maximum mortgages up to \$25,000. Excluded with public housing were par FNMA purchases and S&L changes.

National problems snatch limelight at builders' Pacific Coast meeting

Not all the struggle over housing policies and politics erupted in Washington last month.

The Pacific Coast Builders' Conference in San Francisco—a four-day meeting billed as seeking western answers to western problems—turned into a rare kind of rhubarb between Administration and NAHB spokesmen over housing legislation.

Why the West Coast regional session? Explains Conference Chairman Stetson Shuey of Sacramento: many a coast builder gets to the annual NAHB show in Chicago only once in four or five years; moreover, western builders are often frustrated, after finding a new product there they want to use, because it is not sold in the West.

The session was only a few hours old when national problems grabbed the spotlight. NAHB President Carl Mitnick told a press conference that a housing bill veto would slash starts to 1-million units this year. Such a drop of 400,000 units from

H&H staff



NAHB'S MITNICK

"... a horrible thing"

housing's spring pace would put 1-million men out of work, he cried.

Next day President Eisenhower vetoed the 1959 housing bill. But the scheduled press conference was for the day's top speaker, Deputy HHFA Administrator Walter Rosenberry (subbing for his boss, Norman Mason). Asked if he would call Mitnick's forecast "groundless," Rosenberry replied: "I have no figures that would lead me to any such conclusion as [Mitnick's]." Rosenberry defended the just-announced veto, reported that White House mail had "been predominantly in favor of a veto."

The white-thatched housing official was still answering questions from the San Francisco press contingent when Mitnick eased into the room. No sooner was Rosenberry through than the NAHB chief sat down at the same oval table and began a rebuttal that turned into what the San Francisco *Call-Bulletin* called "a bitter diatribe."

Cried Mitnick: "The veto is a severe and unwarranted blow to the housing needs of the people. Repercussions could be horrible. It could cost 400,000 units in the next 12 months. I've never seen a housing bill that could satisfy everybody. It's a bit too high on urban renewal. We're violently opposed to public housing, but we've got to come up with an answer and urban renewal comes the closest of anything so far.

"If the veto stands, rental housing is dead. The last good rental housing program was many years ago. The President's suggestions for legislation in his veto message are so inadequate—well, they are very inadequate.

"This is a horrible thing that this [housing] becomes a major political issue. We've been working on this [1959 bill] for 16 months. When the country was in the doldrums, you all know what homebuilding did for the country. This is the thanks we get."

Mitnick turned to Rosenberry, who was listening to the outburst impassively. "It's a wonderful piece of Americana," he purred, "when Mr. Rosenberry and I can sit here in the same room and enjoy each other."

Within the same hour, San Diego builders issued a statement sharply disagreeing with their national president. "We absolutely support the President in his veto," it said. Added past San Diego President Stanley Scott (who is also president of the Home Builders Council of California): "We want a housing bill in the worst way. But it's not our wish to saddle taxpayers with giveaway programs or other inflationary adventures which might ultimately be to our disadvantage. The veto will cut starts some—perhaps 10% in a year—but we've got to be realistic enough to live with this."

At noon HHFA's Mason added his voice by special long distance telephone to that of his proxy, Luncheon Speaker Rosenberry: "Other things besides concern for your industry have gone into the veto . . . the Democratic housing bill almost got into outer space" it went so far afield, he said.

But at lunch next day, Mitnick had the last word: "This veto will hurt all builders, but you're going to see a lot of little builders go right down the drain." Aware some builder locals disagreed with his attack, Mitnick begged builders to "get together and stay together" to keep housing from becoming "a political football."

Other conference developments:

- One western answer to building better (or at least as well) for less was unwrapped by Pabco building materials division of Fibreboard Paper. It was a self-supporting interior wall partition built of two layers of gypsum wallboard plus 1"x6" gypsum ribs 24" OC. It eliminates wood studs, produces 20 sq ft more useful floor space in a typical tract house and is just as strong, say company officials: "Pabcowall" will be marketed only in California for the present.

- Design of merchant-built homes is best in the nation on the west coast—and getting better—declared Neil Connor, FHA Chief of Architectural standards. In a contest he just helped judge for *Sunset* magazine, half of the merchant-built entries won awards, compared to only fifteen percent of the custom-designed houses, Connor reported.

- Builders considering rental housing should take a look at Fanny May's standby price on FHA sec 207's advised regional FNMA Manager Paul Akin. The price of 92 was set when 207's should have sold at 95. Today a 4½% 207 would bring 90 or less in California. "It's a sleeper," said Akin.

Some builders are making a mistake of switching to apartment construction "because they paid too much for their land," cautioned Jack Tuggle, FHA asst director in San Francisco. And Vice President Earle Taylor of Crocker-Anglo Bank, San Francisco, warned that insurance companies are now becoming choosier about where apartments are built. "Avoid the fringe areas," he cautioned.

NEWS continued on p 51

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Lions & lambs rub elbows at a lavish spectacular on FHA's 25th birthday

Nearly 1,300 housing industry leaders—the biggest turnout of industry brass in years—helped celebrate FHA's 25th birthday last month in Washington.

The occasion was a ceremonial spectacular. And so no eyebrows should be lifted over the fact that President Eisenhower, the guest of honor, and Sen John J. Sparkman (D, Ala.) whose aims in housing the President has often denounced, should have sat only one plate apart at the head table. The place of honor accorded Sen Homer Capehart (R, Ind.), right next to the evening's chief speaker, Chairman Raymond Saulnier of the White House Council of Economic Advisors, was a bit more preposterous. Capehart, minority housing leader in the Senate, led the congressional inquisition which almost crippled FHA in 1954.

The President himself set the tone of the occasion when he spoke his off-the-cuff thanks to FHA for achieving a "miraculous" financial record—one in which "it wasn't the taxpayer that had to carry the bill." (In 25 years, FHA insured 5,000,000 home purchases and 22,000,000 home improvement loans, paid back the US Treasury the \$65.5 million borrowed to get started, accumulated reserves of \$719 million and operated at a profit every year since 1940).

Eisenhower said he was "impressed" by that financial record, cited a few minutes earlier by Saulnier. "He said it was remarkable," the president commented. "I say, in a government like this, it was miraculous."

Eisenhower said he believes "we can measure the strength of the US in the same tempo" as the rise in homeownership. "The only more valuable purchase a man can make," the Chief Executive said, "is a wedding ring. And that wedding ring is the inspiration for the home and purchasing it."

It was the Chief Executive's first appearance at a housing function since he launched the American Council To Improve Our Neighborhoods in 1954. The FHA salute was also the first time the President's old friend, Aksel Nielsen, had let himself into the lime light for housing. Nielsen, president of Mortgage Investments Company of Denver, was chairman of the celebration, which was sponsored, among others, by the presidents of 16 housing trade groups.

In his talk, to which Eisenhower listened attentively, Saulnier laid down what may well be the Administration's clearest statement yet of its philosophic approach to housing. Key excerpts:

"FHA had done its job in ways that have enhanced the vigor and increased the strength of our free institutions, not weakened them. The FHA does not contemplate the replacement of private financing by public financing. It is the FHA idea that government's role is to facilitate the flow of private funds into the financing of homeownership and improvement, not to substitute public funds for them."

Looking ahead to the next 25 years, Saulnier wrote off as comparatively easy the task of boosting housing starts to keep up with growing US population. "Building the houses will be the least difficult part of the job," he said. "The real challenge will be to meet our housing requirements in ways that will leave our free institutions not just intact, but stronger and more vigorous."

MARKET BRIEFS

Bomb shelters for everyone?

A bill to require a shelter from nuclear fallout in every new home in New York will be presented to the New York legislature next year by Gov Nelson Rockefeller. Endorsing enthusiastically the report of a committee he named to study the fall-out danger, Rockefeller also will ask that owners of all existing homes be required to build shelters in them. His committee estimated a do-it-yourselfer could add a shelter for only \$150. Cost in a new home would be about \$500.

This first proposed legislation for mandatory shelters was greeted with jeers from most of the press. Long Island's *Newsday* headlined its editorial: "Nelson in Never-Never Land." Most restrained comment came from Victor A. Sullivan, president of the New York HBA, who said: "The entire proposal is very premature."

A house of the year

Homebuilders are planning to bring out a national model house next year—Detroit style.

The idea, as vice chairman Richard D. Hudson of the Natl Housing Center explains it, is to produce "a house we can say is for the representative citizen" yet one which embodies new technologies and methods that now take too long from invention to widespread use.

The plan grew out of NAHB's Exhibit House for a London Trade Fair opening March 1 (*June, News*). Builders expect to make a model with the same basic features as their 1960 American house. An eight-man team of builders (six of them also architects) has come up with a 1,425 sq ft, 3-bedroom, 1½-bath model adaptable to either slab, crawlspace, or basement. The house will have a family room and separate dining room. The floor plan and new technologies (some de-

veloped in NAHB research houses) will be mandatory for any builder who wants to tie into national promotion of the model. But items like exterior siding, roofing, built-in equipment, and finishes will be left to each builder. "We'll have suggested elevations within which each local model must come," adds Hudson.

If the plan works, builders hope to repeat it every year—auto fashion.

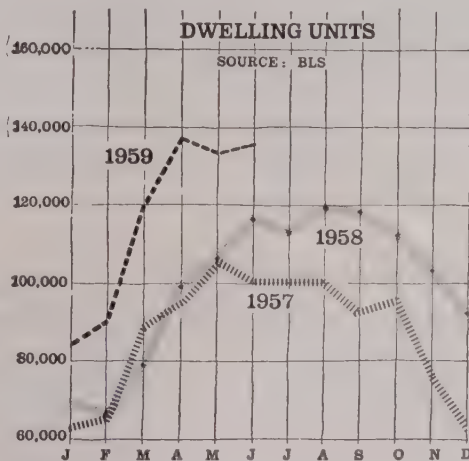
As housing works now, Hudson contends, new ideas often take ten years from field testing to wide acceptance by the housing industry. By giving builders a big promotional incentive, NAHB hopes to cut this gap closer to the industrial norm of two years. This is one way builders can help hold down the cost of building, Hudson says.

Apartment vacancies rise

Vacancies in FHA rental units have risen by more than 33% during the last year.

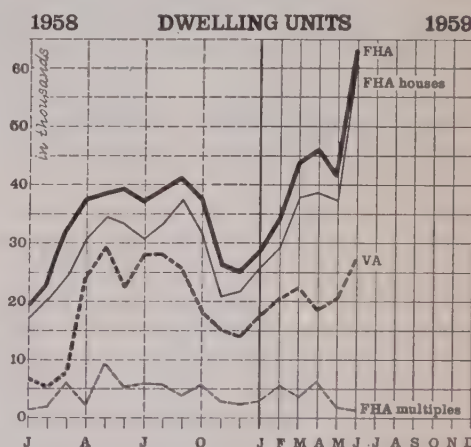
The vacancy rate—now 4%—is still well below what the agency allows for (usually 7%) in agreeing to insure an apartment mortgage. But it is up from 2.9% a year earlier (March 15, 1958) and up from the record low of 2.4% in 1957.

In six cities—Tulsa, Detroit, Jacksonville, Houston, Springfield, Ill., and Shreveport—vacancies are 15% or higher. This may spell future trouble for some projects. But FHA points out that its statistics can be warped in some areas because they include just-completed apartments which may not yet have attained "normal occupancy." Rental projects in real trouble are excluded from the vacancy count. Among apartments with title transferred or the mortgage assigned to FHA, a whopping 20% are vacant now. This would boost the vacancy rate for all completed projects insured by FHA from 3.9% a year ago to 5.4% now. *NEWS continued on p 54*



HOUSING STARTS showed a contra-seasonal trend in June, reached 136,000 which is up 2,000 from May and 23,000 from June of 1958. Private starts total 131,200 for a seasonally adjusted annual rate of 1.37 million—up 29.5% from June, 1958 and 30,000 over the rate in May. Public starts amounted to only 4,800 in June—way off the 11,700 of June, 1958, but up from May's 3,400.

Private starts for the first half of 1959 total 690,700 for an average seasonally adjusted annual rate of 1.378 million. If this rate were maintained through the rest of 1959, the year would be the biggest ever. (Best year to date: 1950 with 1,352 million starts.) Public starts for the first half year total 18,800 vs 38,000 for first half, 1958.



FHA APPLICATIONS on new units soared to 62,695 in June—up 51% from May and up 62% from June, 1959, and highest since 1950. But the surge was largely artificial. FHA concedes that thousands of applications were submitted by builders interested only in beating the July effective date of the new MPSs. All units covered by June applications need meet the old MPRs only. New house applications of 60,187 were up 57.8% from May and 80.1% from June, 1958. Project unit applications of 2,508 were off 22.9% from May and 52% from June of last year.

VA, which also made the MPS change, also showed a June surge—reaching 27,164—up 31% from May but off 4.3% from June of 1958.



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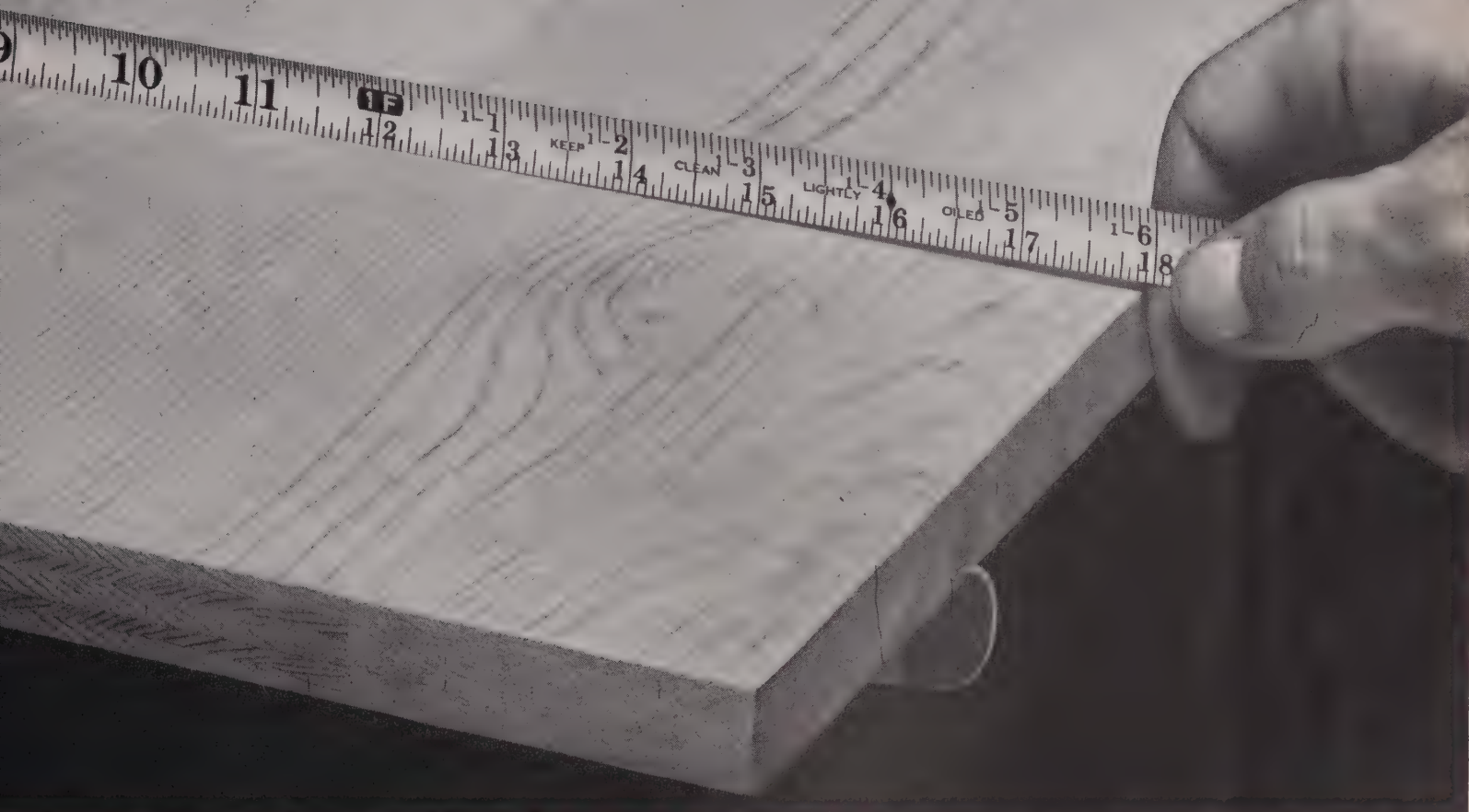
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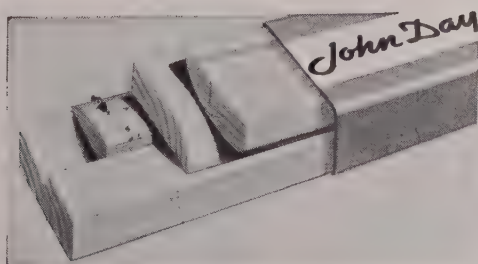
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Discounts, interest rates still rising; pinch 'worst ever,' cry mortgage men

You will see no slack in the mortgage pinch until early 1960. Most mortgage men insist no substantial easing is even in sight.

FHA-VA discounts, up another $\frac{1}{2}$ to 1 point in July, will go even higher this fall. So will conventional loan rates. Says Harry Held, senior vice president of the giant Bowery Savings Bank: "The mortgage market may well be as tight as we've ever seen it." But he predicts there will be ample money for spring building in 1960. No commitments will be made on it until January or February and then only at high-prices—higher than those now current.

The rapid June-July rise of discounts and decline of supply has amazed even the most sophisticated of mortgage men.

Says one: "This is the worst I've ever seen. I think a lot of people who aren't close to the picture don't realize just how bad it is." Other mortgage bankers agree.



Full impact of the squeeze will not hit housing until fall. Future commitments, made when money was easier last spring, are still being worked off. But builders at the end of the money pipeline in California are already complaining and cutting back plans. Some are again turning to local S&Ls for conventional loans—taking back second mortgages to keep down payments low.

The big Bank of America, which was investing heavily in FHAs in the spring, is virtually out of the market. Another California bank is warning builders to be wary on future apartment projects, a tip-off that soaring interest rates may cut off the West Coast's apartment building boom.

Every factor in the economy seems to be working for higher interest rates on a dwindling supply of mortgage money.

Besides the stiff competition from industry and local government for long term money, housing has these added woes:

1. New York savings banks, which had heavy withdrawals in April, lost again in July—the next quarterly dividend-paying period. The money apparently is going into the stock market. Some bankers complain they now don't have enough money to meet the commitments they made last spring—therefore won't make more. Result: most are still out of the market.

2. Life insurance companies are cutting quotas, raising requirements for mortgagors. A boost in their federal income taxes has made yield even more important. Many now favor tax-exempt municipal issues—yielding up to 5%.

Investors who are buying mortgages want a minimum of 5.5% yield on FHAs and VAs. This means a price of 94 on $5\frac{1}{4}\%$ paper. And 94 is the current low. Few consider it the bottom.

The much heralded boost in the VA interest rate from $4\frac{3}{4}\%$ to $5\frac{1}{4}\%$ is proving little help to housing.

It is not bringing out more money for VA. Mortgage men greeted it with a chorus: "Too little, too late." It may attract some business to VA from FHA but little more. If FHA boosts its rate to $5\frac{3}{4}\%$ as mortgage men are urging, it will again put VA back on its oft-tread path to obscurity.

Fanny May has pegged the new VA $5\frac{1}{4}\%$ loans at the same price as FHAs (95½ to 97 net), already $\frac{1}{2}$ to $1\frac{1}{2}$ points over the open market. Another cut in its secondary market prices—cut one point just last May 29—looks imminent. Offerings are soaring, up 16% in mid-July from the first half of June.

Mortgage bankers for whom Fanny May is still a strong backstop praise its performance of the past three months.

Housing will probably have another major competitor for long term funds soon—the Treasury.

The Administration's request for a boost in the $4\frac{1}{4}\%$ ceiling on long term government bond issues still has a chance for Congressional approval. If raised, "it will mean real trouble for us" predicts J. Howard Edgeron, president of the California Federal S&L of Los Angeles (the nation's largest). His logic: it would further cement a high level of interest into the economy and force S&Ls to boost their interest to shareholding depositors and of course to borrowers.

MORTGAGE BRIEFS

VHMCP dies—temporarily

The snafu over a housing bill is producing two notable casualties—the Capehart military housing program and now VHMCP.

VHMCP was to expire at the end of July—though its chances for revival in any bill which may eventually pass are good.

The Administration is admittedly counting on VHMCP to keep the heat off the direct VA loan program. The VA bill signed by President Eisenhower in June authorized \$100 million more for direct loans as well as raising the interest rate from $4\frac{3}{4}\%$ to $5\frac{1}{4}\%$.

The President directed VA to use "maximum caution" in making direct loans until it finds out whether the new rate will draw new money into the VA program. "Maximum caution" in this context is interpreted generally as meaning no loans—at least for several weeks.

4% dividends, no more

Will 4% be the top dividend rate paid by S&Ls to their shareholders?

It's beginning to seem so. S&Ls in California were the first to reach 4%—were almost alone for a year. This summer they were joined by others in Florida, Texas, Oklahoma, and many parts of the Midwest and East.

A boost seemed logical and 13 associations in San Diego made the jump to $4\frac{1}{2}\%$ July 1. The big S&Ls in Los Angeles were about to follow suit—reluctantly. Then California S&L Commissioner Frank Mackin and Regional Home Loan Bank President J. Alston Adams intervened. They persuaded LA S&Ls to stay at 4%, arguing a further boost could only be inflationary—actually help no one. The San Diego S&Ls were notified that they would have to file weekly reports on certain balance sheet items usually reported quarterly. The associations got the real intent of the message: all but one agreed to cut the rate back to 4% in September.

The decision apparently forestalls another danger: that state and federal officials would ask legislative authority to impose a dividend rate ceiling such as the 3% interest ceiling on commercial bank time accounts.

IRS ruling attacked

Mortgage bankers are building a new war-chest to fight the Internal Revenue Service's ruling on Fanny May stock losses.

IRS held last year that mortgage bankers and/or builders must put the stock on their books at par value—even though its market price is 50¢ to 60¢ on the dollar. The loss sustained in selling the stock can be claimed only as a capital loss—not ordinary loss, in tax computations. Most mortgage men and few builders ever have any capital losses. Thus they pay a tax on a dollar for which they received only 50¢ to 60¢.

MBA moved slowly after the ruling, based on advice that the IRS ruling would not hold up. But it has. This year MBA officially decided that the best way to overrule IRS was with new legislation, now pending.

NAHB and other mortgage bankers, acting independently of MBA, pressed instead for a change in IRS's decision. Now the various mortgage bankers have banded together, are pooling their money to finance an attack on both fronts.

Arizona S&L, Builder Don Elbel go on the rocks together

The free-wheeling Arizona Savings & Loan of Phoenix has been taken over by the state.

The action also seems to have ended the homebuilding career of free-spending Donald Elbel of Kansas City.* One of the state's chief reasons for closing the S&L was a series of loans made to Elbel totalling \$8 million. They were to finance construction of 2,900 homes in 19 Kansas City tracts. (His 1958 starts: 1,100.)

Darrell R. Parker, special assistant state attorney general, charged in the state's Superior Court petition for receivership that the loans were made to Elbel without proper appraisal and in some instances with little security. Former California S&L Commissioner Milton O. Shaw told the court the S&L's books were inadequate, practices unsound, and accounting procedures improper.

*Elbel spent a reported \$100,000 for a lavish party at the NAHB convention this year, importing an entire nightclub show, including chorus line, from Las Vegas.

Elbel apparently negotiated the loans on the basis of his longtime friendship with the S&L's president, V. Frank Kanan. Both once worked for the same real estate broker in Kansas City.

Arizona S&L is a state-chartered stock company, subject only to the Arizona banking dept, no federal agency. It does not have deposit insurance. (It cancelled deposit insurance it once carried with the International Guaranty & Insurance Corp of Tangiers after the latter firm ran afoul of state authorities in California May '58, *News*). The S&L has assets of \$41 million, making it the fourth largest in Arizona. Besides its Phoenix office, it has branches in ten other Arizona cities.

Even before the S&L was taken over by the state, Elbel had run into financial troubles. Kanan had worked out a deal for another Kansas City builder, James H. Stanton, to take over all of Elbel's local holdings.

The S&L's receiver has decided to go ahead with this arrangement, explaining to the court that foreclosure and liquidation of the Elbel

holdings would lose \$5 million of the \$8 million. By completing the work in progress he expects to get most of the \$8 million back.

Stanton already owned 49% of Elbel's prefabricated company, Wadsworth Homes. He gets Elbel's share for \$1. He also acquires Elbel's eight building companies for \$1 each. He also buys Elbel's mortgage company, American Mortgage Co, for \$77,500. But he also gets \$900,000 in unpaid subcontractors' bills.

Elbel already has a new business. Even before he lost his building business, he bought control of the Exchange Casualty & Surety Co of Michigan, an insurance company which lost \$336,180 last year. In a burst of optimism, he announced that deal would "enable the Elbel organization and staff to devote its capital and staff energies to financing."

And back in Phoenix the state was considering the first offer for reorganization of the S&L. It came from Los Angeles S&L baron Mark Taper. He promises to make good on all deposits.

NEWS continued on p 57

MORTGAGE MARKET QUOTATIONS—new construction only

(Sale by originating mortgagee, who retains servicing.) As reported to HOUSE & HOME the week ending July 10, '59

FHA 5 $\frac{1}{4}$ s (Sec 203) (b)

FNMA prices							
Spec	Sedry	Minimum Down*		Minimum Down*		10% or more down	
Asst	Mkt	30 year		20-25 year		20-25 year	
VA**	FHA**	Immed	Fut	Immed	Fut	Immed	Fut
96	96	95-96	95-96	95-96	95-96	96-96 $\frac{1}{2}$	96-96 $\frac{1}{2}$
96	97	par-101 ^d	par-101 ^d	par-101 ^d	par-101 ^d	par-101 ^d	par-101 ^d
—	—	95	94-95	95	94-95	*	*
96	96	95 $\frac{1}{2}$ -97	95 $\frac{1}{2}$ -97	96-97	96-97	96-97	96-97
96	96	97-98	96 $\frac{1}{2}$ -97 $\frac{1}{2}$	97-98	96 $\frac{1}{2}$ -97 $\frac{1}{2}$	97-98	96 $\frac{1}{2}$ -97 $\frac{1}{2}$
96	95 $\frac{1}{2}$	94 $\frac{1}{2}$ -96	94 $\frac{1}{2}$ -96	97 $\frac{1}{2}$	97 $\frac{1}{2}$	96-97 $\frac{1}{2}$	96-97 $\frac{1}{2}$
96	95 $\frac{1}{2}$	95 $\frac{1}{2}$ -96	95 $\frac{1}{2}$ -96	*	*	96 $\frac{1}{2}$ -97	*
96	96	94-95	94-95	*	*	95 $\frac{1}{2}$ -96	95 $\frac{1}{2}$ -96
96	96	94 $\frac{1}{2}$ -95	94 $\frac{1}{2}$ -95	95-95 $\frac{1}{2}$	95-95 $\frac{1}{2}$	95 $\frac{1}{2}$ -96	95 $\frac{1}{2}$ -96
96	95 $\frac{1}{2}$	94	93 $\frac{1}{2}$	*	*	96-97	*
96	95 $\frac{1}{2}$	98	97 $\frac{1}{2}$	98	98	99	99
96	97	97 $\frac{1}{2}$	97 $\frac{1}{2}$	97 $\frac{1}{2}$	97 $\frac{1}{2}$	97 $\frac{1}{2}$	97 $\frac{1}{2}$
96	95 $\frac{1}{2}$	95-96	*	95-96	*	96 $\frac{1}{2}$	*
96	96 $\frac{1}{2}$	97	97	98	98	98	98
96	95 $\frac{1}{2}$	94-95	94-95	95-95 $\frac{1}{2}$	95-95 $\frac{1}{2}$	96-96 $\frac{1}{2}$	96-96 $\frac{1}{2}$
96	96	94-96 $\frac{1}{2}$	94-96	94-97	94-97	95-97 $\frac{1}{2}$	95-97
96	96 $\frac{1}{2}$	96	95	96	95	96 $\frac{1}{2}$	96

*3% down of first \$13,500; 15% of next \$2,500; 30% of balance.

SOURCES: Atlanta, Robert Tharpe, pres, Tharpe & Brooks Inc; Boston, Robert M. Morgan, vice pres, Boston Five Cents Savings Bank; Chicago, Murray Wolbach, vice pres, Draper & Kramer Inc; Cleveland, William T. Doyle, vice pres, Jay F. Zook Inc; Denver, C. H. Bacon, vice pres, Mortgage Investment Co; Detroit, Harold Finney, vice pres, Citizens Mortgage Corp; Houston, Donald McGregor, exec vice pres, T. J. Bettes Co; Jacksonville, George Dickerson, vice pres, Stockton, Whatley, Davin & Co; Los Angeles, Chris Gebhardt, asst vice pres, The Colwell Co; Newark, William F. Haas, vice president, Franklin Capital Corp; New York, John Halperin, pres, J. Halperin & Co; Oklahoma City, B. B. Bass, pres, American Mortgage & Investment Co; Philadelphia, William A. Clarke, pres, W. A. Clarke Mortgage Co; St. Louis, W. C. Rainford, pres, Mercantile Mortgage Co; San Francisco, M. V. O'Hearn, vice pres, Bankers Mortgage Co of Calif; Washington, DC, Hector Hollister, vice pres, Frederick W. Berens Inc.

VA 5 $\frac{1}{4}$ s

City	30 year no to 2% down		25 year 5% down		20-25 year 10% down or more		Conven- tional Interest Rates
	Immed	Fut	Immed	Fut	Immed	Fut	
Atlanta	95-96	95-96	95-96	95-96	96-96 $\frac{1}{2}$	96-96 $\frac{1}{2}$	5 $\frac{3}{4}$ -6
Boston local	par-101 ^d	par-101 ^d	par-101 ^d	par-101 ^d	par-101 ^d	par-101 ^d	5
out-of-st	95	94-95	95	94-95	*	*	—
Chicago	*	*	95-95 $\frac{1}{2}$	95-95 $\frac{1}{2}$	96-97	96-97	5 $\frac{3}{4}$ -6
Cleveland	97-98	96 $\frac{1}{2}$ -97 $\frac{1}{2}$	*	*	97-98	96 $\frac{1}{2}$ -97 $\frac{1}{2}$	5 $\frac{1}{2}$ -5 $\frac{3}{4}$
Denver	94-96	94-96	94-96	94-96	94 $\frac{1}{2}$ -96 $\frac{1}{2}$	*	5 $\frac{3}{4}$ -6
Detroit	95 $\frac{1}{2}$	*	*	*	*	*	5 $\frac{3}{4}$ -6
Houston	94-95	94-95	*	*	*	*	6
Jacksonville	94-95	94-95	*	*	*	*	5 $\frac{3}{4}$ -6
Los Angeles	94	93 $\frac{1}{2}$	*	*	*	*	5 $\frac{3}{4}$ -6.6
Newark	96	95 $\frac{1}{2}$	98*	97 $\frac{1}{2}$ *	99	98 $\frac{1}{2}$	5 $\frac{1}{2}$ -5 $\frac{3}{4}$
New York	97*	97*	97*	97*	97*	97*	5 $\frac{3}{4}$ -6
Okla City	95-96	*	95-96	*	96 $\frac{1}{2}$	*	6
Philadelphia	96 $\frac{1}{2}$	96 $\frac{1}{2}$	97 $\frac{1}{2}$	97 $\frac{1}{2}$	97 $\frac{1}{2}$	97 $\frac{1}{2}$	5 $\frac{1}{2}$
San Fran	94-94 $\frac{1}{2}$	94	*	*	*	*	5 $\frac{3}{4}$ -7.2
St Louis	*	*	*	*	*	*	5 $\frac{1}{2}$ -6
Wash, DC	96	95	96	95	96 $\frac{1}{2}$	96	6-6 $\frac{1}{4}$

► Immediate covers loans for delivery up to 3 months; future covers loans for delivery in 3 to 12 months.

► Quotations refer to prices in metropolitan areas; discounts may run slightly higher in surrounding small towns or rural zones.

► Quotations refer to houses of typical average local quality with respect to design, location and construction.

Footnotes: a—no activity. b—very limited activity. c—insurance companies only. d—on 5% mortgages. e—on 30-year mortgages. f—top price in spread paid only by insurance companies buying on quota. g—includes construction loans. w—FNMA pays 98 for FHA 5 $\frac{1}{4}$ % mortgages of \$13,500 or less after $\frac{3}{4}$ point purchasing and marketing fee and $\frac{3}{4}$ commitment fee. x—FNMA pays $\frac{1}{2}$ point more for loans with 10% down or more. y—FNMA net price after $\frac{1}{2}$ point purchase and marketing fee, plus 2% stock purchase figured at sale for 50¢ on the \$1. z—price after $\frac{3}{4}$ point purchasing and marketing fee, plus $\frac{3}{4}$ point commitment fee; applies only to VA mortgages of \$13,500 or less.

NEW YORK WHOLESALE MORTGAGE MARKET

VA and FHA 5 $\frac{1}{4}$ s

Immediates: 94-95 $\frac{1}{2}$
Futures: 94-95 $\frac{1}{2}$

VA 4 $\frac{3}{4}$ s

Immediates: 89 $\frac{1}{2}$ -90 $\frac{1}{2}$
Futures: no activity

FHA 5 $\frac{1}{4}$ spot loans

(On homes of varying age and condition)
Immediates: extremely unsettled

Prices for out-of-state loans, as reported the week ending July 17, by Thomas P. Coogan, president, Housing Securities Inc.

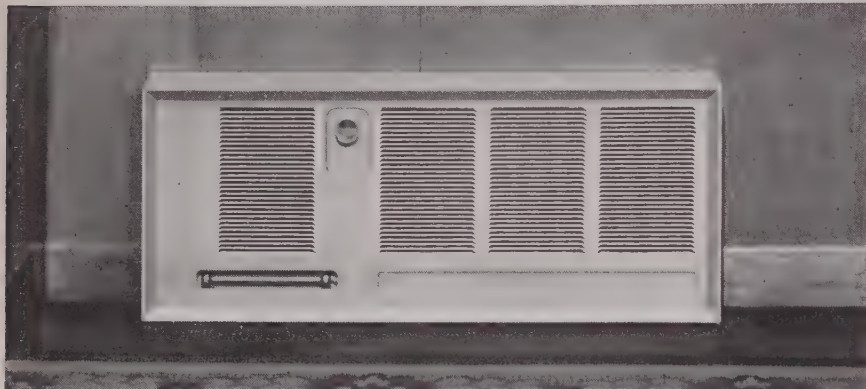
Note: prices are net or originating mortgage broker (not necessarily net to builder) and usually include concessions made by servicing agencies.

FNMA STOCK

	Month's		Month's	
	June 12	July 13	low	high
Bid	56 $\frac{1}{2}$	57 $\frac{1}{4}$	55 $\frac{1}{4}$	58
Asked	58 $\frac{1}{2}$	59 $\frac{1}{4}$	57 $\frac{1}{4}$	60

Quotations supplied by C. F. Childs & Co.

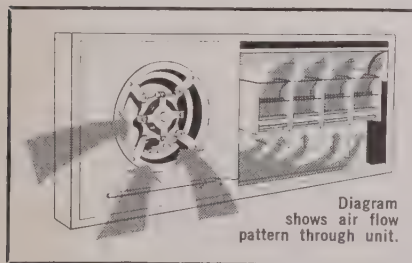
New R&M-Hunter Baseboard Unit Makes Electric Heating News



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Best comfort results from combining features of Baseboard and Forced Air Heat

The benefits of powered circulation plus the ideal system of lower level temperature control combine to produce lowest cost comfort. By recirculation of air concentrated in the lower three feet of the room—the yardstick zone—heat is directly utilized by the occupants of the room. There is no wasteful overheating of outer wall or ceiling surface to speed up the heat loss and needlessly increase the cost of heating. You use all of the heat you pay for.



Floor-Level Thermostat Guards Comfort. Cold air sinks to the floor immediately. The R&M-Hunter Forced Air Baseboard knows the minute that a door or window has been opened and responds instantly. Cold or cooling floor air is whisked into the unit by a quiet centrifugal blower. It is forced over the heating elements for fresh warmth and delivered directly into the "living zone" at comfortable temperature. Air is never super-heated so as to escape wastefully to the ceiling. Positive, powered control of circulation at low levels mixes the tempered air with room air immediately. Outer wall and window areas are kept at or near room temperature for economical operation.

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Safe, Easy to Clean. Built-in safety switch automatically cuts off power to both blower and heating elements when front panel is removed. No need to throw master switch for periodic cleaning. With front panel removed, all parts are easily accessible to blower attach-

ment of vacuum cleaner. Power connections are automatically restored when front panel is secured in position.

Requires No Oiling. Sealed bearings with life-time lubrication eliminate maintenance nuisance. No periodic oiling required. Quiet, efficient blower operation assured at all times.

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OPERATING EFFICIENCY, "ZONE CONTROL" POPULAR

With thermostat control in each room, you completely eliminate that hard-to-heat room problem. It is never necessary to overheat one area of the home to achieve comfort in another. Individual rooms may be maintained at temperatures best suited for the activity of that area without disturbing the temperature of other rooms.

A sudden change in wind direction or addition of sun heat through a window are immediately compensated for within the room where change occurs. This gives true operating economy, impossible to achieve with a single, centrally located thermostat.

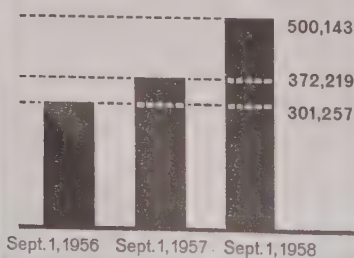
Units are available with or without built-in thermostat. A single thermostat-equipped unit will control two or more Forced Air Baseboard units in a single room.

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Builder 'point four' gains momentum in wake of Mitnick Latin tour

Despite revolution and earthquake, NAHB's volunteer program of overseas housing aid (*June, News*) is off to a good start, says President Carl T. Mitnick. After a three-week look at housing problems in five Latin-American countries, he reports an acute housing need, and great interest in learning ways to meet it.

"I found Latin American housing officials extremely interested in our program to send small teams of US housing experts to their countries," he says. "Housing is the No. 1 need in all the countries I visited. Proper financing is the major stumbling block. I found officials intensely interested in the account I gave them of how government insured savings and mortgages had increased home ownership in the United States."

Starts in October

As a result of the trip, arrangements have been made for the first builder team to visit Mexico—at their own expense—in October. Nels Severin, immediate past NAHB president, will head the four-man task force. With him will be Builders John Griffin of Oklahoma City, Clayton Powell of Savannah, and William Schaefer of Phoenix.

So far, some 60 builders have volunteered to visit other countries on the same basis, spend as long as two months on the scene providing advice on construction and finance.

In his tour, Mitnick visited—at his own expense—Guatemala, Nicaragua, Costa Rica, El Salvador, and Mexico. Begun as a trip to Guatemala only, the tour grew rapidly as other countries displayed interest in hearing how the builder program will work. Guatemala and Costa Rica have also formally requested visits by builder teams, which are now being organized.

"The contrasts in the Latin American nations were amazing," says Mitnick. "I saw splendid homes, some almost as big as a football field, with magnificent grounds and views. I also saw stretches of hovels of straw and mud with dirt floors and the most primitive sanitation facilities.

"As a homebuilder, I looked, virtually in vain, for what we call middle-class houses. For the most part, they were lacking."

First stop for Mitnick—who was accompanied by his wife and daughter Barbara, 21—was Guatemala, where he was the personal guest of President Miguel Ydigoras Fuentes. During his talks with housing officials and homebuilders, a bill to set up a government agency with mortgage insurance authority similar to FHA was given its first reading in the Guatemalan Senate.

"The bill had been prepared two and a half years ago," says Mitnick, "but pigeon-holed. Officials told me that my visit was the stimulant needed to revive the legislation and get it rolling. I was assured its passage is certain."

Give-away house

Highlighting the visit was the presentation of the "Casa Carl T. Mitnick" to Carlos Villaviceno, a 74-year old laborer. The five-room concrete block bungalow was purchased for a "deserving family" on orders of President Ydigoras, with funds earmarked for Mitnick's expenses on his visit, which he refused. Mitnick supplemented the fund with



PRESIDENTS MITNICK & YDIGORAS

A check to house the deserving

\$400 of his own to make up the full price of the house, just under \$1,400 (*see photo*).

"Normally, under the government housing program, the new homeowner would have paid for the house monthly over a 10-year period," says Mitnick.

In Nicaragua, the situation was different. "The revolution was at its most critical point when I arrived," says Mitnick. "A business strike was in progress. I did not see any of the Nicaraguans I had expected to consult. Some were in jail, I learned. Others were at home not answering the telephone and not seeing anyone." He did see US Ambassador Thomas E. Whalen who told him: "We like your program. You are doing it in the right place . . . south of the border."

AIA CONVENTION:

What architects think is the trouble with today's design, land planning

"When an architect starts to talk about design you'll notice that he starts to squirm in his seat and finger his collar and, in general, acts like a father who's been asked by his child to explain the facts of life . . . And so he takes evasive action . . . We are so afraid of being labeled artists that we are in danger of becoming only artisans."—Architect William L. Pereira, FAIA.

For a change, the American Institute of Architects did talk about design last month at its 91st annual convention. In fact, design was not just the theme, but the only topic at the New Orleans sessions—a radical departure from precedent engineered by AIA President John Noble Richards, who also reminded some 1,500 delegates: "Construction without aesthetic values is not architecture."

Pereira's gentle deprecation notwithstanding, AIA speakers shed much sharp insight on the trials of mid-century designers. Excerpts:

"Of the approximately \$60 billion spent each year on construction in this country, less than one-third is designed by architects. It is a tragic paradox that designing and planning are the most important and still the least expensive part of any project, and yet are not considered indispensable."

Officials of the International Cooperation Administration—which along with the State Dept and US Information Agency has given the builder program its blessing—showed an ICA "do-it-yourself" housing project in Managua. Under American leadership, groups of six workers from all walks of life spend nights and Sundays building their own houses of precast concrete.

"My feeling was that this was a fine project but of course it does not begin to meet the housing need," says Mitnick.

In Costa Rica, Mitnick found officials admitting a housing deficit of 3,000 units, with production only 1,000 units a year. "Some Costa Ricans were amazed when I told them that in the US mortgages can run for 30 years . . . but I had the feeling the government housing people have many deep reservations about this sort of private financing under a government-insured program."

In El Salvador, "public housing is being promoted not only for low-income families, but also for those in the middle-income class . . . I do not believe that this would be one of the countries for one of our teams to visit initially, because public housing has taken over so much of the situation and officials . . . seem desirous of protecting the status quo."

"Mexico, my last stop, was most rewarding," says Mitnick, "due largely to the enthusiasm for solving the housing problem that was shown by Dr Luis Quintanilla, who is in charge of all housing projects." Typical of the aggressive Mexican attack, says Mitnick, is a 1,000-acre slum clearance project in Mexico City, replacing hovels with community facilities, commercial uses, and housing—including 42% private ownership.

"No progress will be made while we stand by awaiting the next commission. Our profession is beset with a limited outlook in many ways. Laws, regulations, examinations which discourage a young man from entering the profession should be relaxed. A degree in architecture and two years of office work should suffice. All state issuance of licenses should be abandoned. A national license is the only answer. The Taj Mahal was done by an out-of-town architect from Turkey."

"The architect's work in [housing] is miniscule. We know that parceling our land off in 50x100 lots and constructing small boxes void of grade, privacy and impractical to maintain is absurd. Older civilizations have provided us with prototypes. Pompeii, with houses wall-to-wall and cloistered gardens; Bath, England, with its elegant row-houses; and, in fact, all the Mediterranean countries provide examples. This provides compact communities, preserving the countryside around. A few projects, a half-dozen prototype communities, could dispel the foolhardy method of the isolated dwelling for the average man."—Keynote Edward D. Stone, FAIA, New York.

"In the pursuit of the scientific, the practical, the rational, the common sense, the

continued on p 60



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For humble homes not even a fractional fee

continued from p 57

wildest and most beautiful portions of my own country (Canada) have been so hacked with strip development that I wager in not too many years I would be able to drive from Vancouver to Toronto and not see the Rocky Mountains . . . All will be obliterated by fringe development. But this makes good sense to a clear thinking business man. More architects, more planners, more money, more shopping centers, more lots: more mess. It defies me how Europe (pop. 412 million) can have so many people and have so much scenery. Europe can easily fit into the US (pop. 174 million) with Louisiana left over. Yet in Europe you can do this: take a simple walk in the country and have a picnic."—**Charles E. Pratt, RAIC, Vancouver.**

"We need to consider more discriminately than ever land use and the placement of communities . . . If we build in the wilderness, we will not have a wilderness. We need open country and wilderness, both for our own use and for future generations. A green zone around cities, towns, and communities would do much to establish limits within which the architect will work."—**Paul Thiry, FAIA, Seattle.**

"The architect's retreat from greatness is his failure to grow in relation to the job to be done. We have had to assume new areas of responsibility before we were ready to discharge them. We need to concentrate on the distribution of ideas and the in-fighting necessary to carry them through. For every monument of the masters there are a thousand modest buildings to be done and for every custom-built house a thousand humble homes that will not pay even a fractional fee."—**Samuel T. Hurst, dean of architecture, Alabama Polytechnic Institute.**

"Nearly every architect I know is afraid of making a mistake in color. He is like the adolescent boy who hopes to kiss his girl good

night. He knows what he wants but is afraid to take it. I recommend, first of all, eliminating those weasel words 'color as selected' from your specifications. These reflect a cowardly procrastination unworthy of your noble profession."—**Color Expert Julian E. Garnsey, former associate professor of architecture at Princeton.**

Other convention developments:

- Henry R. Luce, editor-in-chief of *HOUSE & HOME* and other Time Inc publications, was made an honorary member of AIA.

- AIA directors adopted a resolution of appreciation to Luce and Editor-Publisher P. I. Prentice of *HOUSE & HOME* "in recognition of the contribution that the annual Homes for Better Living awards program (*H&H, June, July*) has made toward better residential design, particularly in the encouragement of close collaboration between the architect and the homebuilder.

- Thirty-eight architects were upped to the rank of Fellow (FAIA) but what stunned the institute was a curt refusal by a 39th. Clothiel W. Smith of Washington, D.C. spurned the honor because it was proffered for service to the institute and not design. Among the new Fellows who are noted for their contributions to housing: William S. Allen, San Francisco; Arthur Q. Davis, New Orleans; Charles M. Goodman, Washington, D.C.; Paul Hayden Kirk, Seattle; Alfred B. Parker, Miami; Wahl John Snyder, Miami; Oskar Stonorov, Philadelphia.

- President Richards was re-elected, unopposed, for another year, as were First Vice President Philip Will Jr and Second Vice President Henry L. Wright. J. Roy Carroll Jr of Philadelphia defeated incumbent Edward L. Wilson of Ft Worth for secretary. Raymond S. Kastendieck of Gary, Ind., incumbent treasurer, defeated three rivals for that post.

URBAN RENEWAL:

New outcry over lax city slum efforts

Is the idea of getting tough with slumlords on code violations gaining political appeal?

Latest indicator: Chicago Alderman Leon Despres has called for a city council probe of inspection and prosecution procedures, in the wake of a slum fire that took the lives of five children.

Observing that after the fire the building was found to have 141 code violations, Despres said: "Despite the huge income, the serious condition of the building, and the hundreds of residents under illegal living conditions, the municipal court imposed a fine of only \$150 shortly prior to the fire."

Purpose of the council investigation, said Despres, would be to improve inspection and enforcement, cut prosecution delays, and encourage "adequate penalties" against slumlords. A Chicago newspaper recently reported that slumlords are fined an average of only \$30 when they finally do get to court, even for multiple, long-standing violations.

Although the resolution seems headed for the pigeonhole for this summer at least, it has more than passing significance:

- It is one of the few times that a politician

has proposed specific, aggressive action instead of merely paying lip service to the politically sticky enforcement idea.

- Coming on the heels of scandals in New York City's building code enforcement program (*Feb, News et seq*) it adds another bit of evidence to the growing case that HHFA is crediting cities with "workable programs" to qualify for federal public housing and urban renewal aid, when in fact the programs don't work at all.

Major purpose of the "workable program" is to prevent the spread of blight in a city while local authorities, with federal aid, get rid of what already exists. Keystone of the program is effective code enforcement and prosecution.

Second-echelon brass at HHFA have been urging Administrator Norman Mason to crack down on loose approval of workable programs that has characterized urban renewal since the 1954 Housing Act first required cities to have them. But the only visible result so far has been a bland statement explaining how important the program is to fighting blight. Sample: ". . . the challenge

to local leaders and all citizens to build a better community. It makes clear that while federal aid is available success primarily rests upon . . . the people of the community working together."

Practical reason for HHFA's gentleness (e.g., not looking too closely to make sure cities live up to the letter of their workable programs): officials' fear that if they really enforced this part of the law, Congress would repeal it. A fake workable program is, they reason, better than no program at all.

ZONING:

Four-acre zoning upheld by Conn. Supreme Court

Connecticut builders and developers have lost a key test in their efforts to balk the suburban trend to ever-larger lot sizes.

In a unanimous decision, the state Supreme Court upheld the right of New Canaan, upper bracket New York City exurb, to upgrade 4,400 acres of semi-rural land from two-acre to four-acre residential minimums. The decision reversed a lower court ruling that a 1956 ordinance was unreasonable and arbitrary.

Plaintiff John L. Senior Jr, former chairman of the board of New York Airways, contended that the ordinance cut the value of his 436 acres in the upgraded area from \$650,000 to only \$400,000 for homebuilding purposes.

Retorted Associate Justice John H. King in the decision: "The maximum possible enrichment of developers is not a controlling purpose of zoning." In other parts of the town, he noted, there are 1,879 two-acre sites, 753 one-acre sites, 87 half-acre sites and 1,094 even smaller parcels.

"Having in mind New Canaan's present population of under 16,000," Justice King wrote, "we cannot say, as plaintiff infers, that the effect of the upgrading . . . is to limit ownership of new homes in the town to the wealthy." Indeed, noted the court, the town had the highest per capita income of any US town, village, or city in the 1950 Census.

Next move and last resort for Senior's attorneys, if a motion to re-argue is denied: an appeal to the US Supreme Court.

CODES:

Court voids law requiring cast iron sewer pipe

Bituminous fibre pipe producers have won their fight against a Milwaukee rule requiring cast iron pipe in lateral sewer lines.

A Circuit court judge held that the rule was both monopolistic and unconstitutional. "It does not allow a pipe of material which is equivalent or which is suitable for conditions in which cast iron is not suitable," he said, noting that cast iron is subject to corrosion while fibre and clay pipe is not.

The cast iron pipe regulation was imposed last year by both the City of Milwaukee and the Metropolitan Sewerage Commissions. Their engineers testified at a four-week trial that ground water infiltrated fibre and clay pipe and swamped the disposal plant in times of heavy rains. The judge held this is not justification for banning these pipes.

Builders supported the suit filed by the five fibre pipe producers (*April, News*). They estimated that the rule added \$200 to \$300 to the cost of an ordinary city lot.

NEWS continued on p 65



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FHA MINIMUM PROPERTY STANDARDS:

30 changes ordered as new rules take effect; NAHB loses delay fight

FHA's new minimum property standards—the new construction bible that had as many collaborators as an encyclopedia and a gestation period (three years) longer than an elephant's—became mandatory for all one-family FHA and VA homes last month with these developments:

1. FHA Commissioner Julian Zimmerman grew so incensed over efforts by builders to pressure him into postponing the July 1 mandatory effective date that he publicly threatened to resign if builders won the fight. (They didn't, though they did flood FHA offices with a record volume of applications in June. These units need meet the old MPRs only.)

2. FHA headquarters ordered some 30 last minute changes in the new single set of national rules that replaces 28 regional (and often conflicting) minimum property requirements. Most of the changes were minor. But some were important: a complete rewrite of general storage requirements, approval for cheaper grades of lumber for wall framing, new thicknesses for resilient flooring, tighter quality standards for aluminum windows.

When Zimmerman, in office only six months, flatly rejected NAHB pleas to postpone the July 1 effective date, builders tried to build a fire under the agency by running to Congress. A 15-man delegation from Los Angeles, center of opposition to the MPS, flew into Washington, peppered southern California congressmen with protests that the MPS would "add \$400 to the cost of a 1,200 sq ft house." (They offered almost no documentation, either to Congress, FHA or their own national headquarters.) But Asst FHA Commissioner Beverley Mason, called to Capitol Hill to explain FHA's stand, spent most a day rebutting complaints.

Zimmerman's threat to quit came at a dinner celebrating FHA's 25th anniversary. Host was the Long Island Home Builders Institute (whose members were not prominent in this squabble). "I don't care what the California builders say," Zimmerman told an audience of 400, "no trade association is going to run my office." He also referred critically to NAHB directors' action this spring in adopting a resolution demanding postponement of the July 1 mandatory date.

The big batch of MPS changes was adopted so close to the July 1 deadline that FHA field offices now have only a summary of them. The complete text, now being printed, may not be available nationally for a month or two more. Principal changes:

General storage: Minimum volume remains the same (200 cu ft plus 75 cu ft per bedroom) and so does percentage distribution (at least 25% interior and 50% exterior). But the rules get more specific on acceptable sizes and shapes. Sample: closets must be at least 4 ft wide if excess closet space is to count toward total interior storage volume. Where all interior storage is excess closet space, a separate closet at least 18"x36" must be added. Storage space more than 4 ft or under 1 ft deep, cannot count as required storage space. At least half of required exterior storage space must be at least 2½ ft deep.

Wall framing: A new table permits use of No. 2 grades (or equivalent) of stud lumber for most species. Originally, many species called for No. 1 dimension. Moreover, a loophole has been added approving use of even lower grades "provided any serious defects are removed which will make the member unsuitable."

Resilient flooring: Minimum thickness of many types are cut in half (this corrects an inadvertent error, say FHA technicians). Vinyl-asbestos tile may be 1/16" thick instead of 1/8". Homogeneous vinyl tile or sheet (unbacked) is cut to 0.08" (approx 5/64"). For backed vinyl tile or sheet, new minimum thicknesses of wearing surface are: clear (unfilled) vinyl, 0.014"; filled vinyl, 0.02". Overall thicknesses for backed vinyl tile or sheet are now 0.065" for felt backed, 0.05" for filled vinyl backed. Rubber tile or sheet is cut from 1/8" minimum to 0.08" (approx 5/64"). No change for linoleum or cork tile.

Aluminum windows: An entirely new rule requires that each window bear the AWMA label as evidence it meets industry standards. Alternatively, FHA field offices must be given certification that independent laboratory tests show the window meets AWMA specifications.

Distance to property lines: Minimum side-yard clearance is boosted from 5' to 8' for semi-detached dwellings. But the rule requiring that the sum of side yard dimensions be 15% of

the plot width (or at least 10') will apply only to detached homes.

Bedroom closets: A new rule limits the maximum height of a closet shelf to 74" above the floor.

Linen closets: A new rule will allow required shelving only within 74" of the floor.

Kitchen shelving: A new section recognizes lazy-susan shelves as twice their actual area in meeting minimum requirements, provided they have a clear opening at least 10" wide. Counter tops less than 30" or more than 38" above the floor are excluded from required minimums. Wall shelving over 74" from the floor is excluded, as is wall shelving closer than 15" to a counter top. Wall shelving must be at least 24" over range or sink cabinets.

Basement light & ventilation: FHA backs down on a controversial requirement for 2% of floor area for natural light and ventilation in each compartment when basements are partitioned into separate spaces. Now, 1% of floor area is acceptable for basements, open or separate spaces.

Carports: A new provision requires an extra 3½' width to carports when they constitute the main entrance to the house.

MATERIALS BRIEFS:

Fee hike alarms producers

Materials producers are alarmed at a substantial increase in fees charged by the International Conference of Building Officials for approving products as suitable for use under the ICBO standard building code.

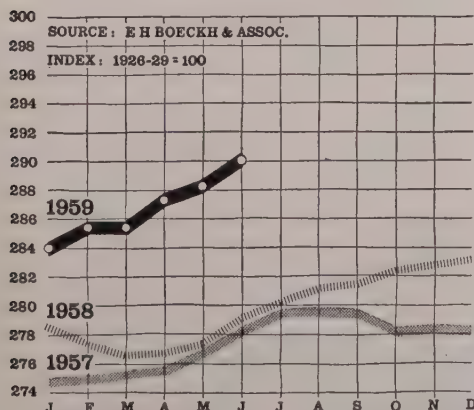
The topic proved hottest among those discussed at the first meeting in New York of the new Housing Industry Council. Some 50 top executives of residential materials producers who attended, expressed fear that ICBO's idea might spread to other model code-making groups. The hike involves addition of a \$100 annual renewal fee plus \$10 a month for listing in the group's magazine, to the \$150 approval fee already charged for each product.*

The increase will probably be topic A on the agenda of a subgroup which the manufacturers agreed should be formed to study problems arising from code variations which have long slowed housing's progress.

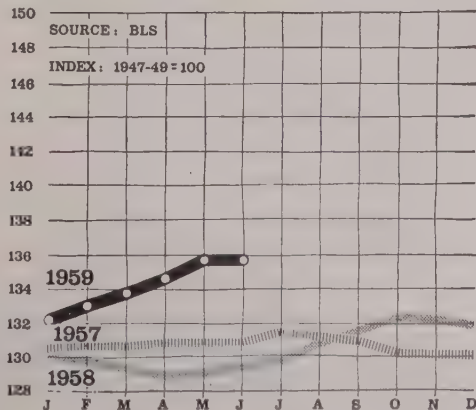
The council, which grew out of an ad hoc committee called together by Time Inc's Editor-in-Chief Henry R. Luce, was formed only last December to improve communications between the manufacturers and other segments of the housing industry. Last month's meeting, chaired by National Gypsum Vice President John Brown, heard James Ashley, vice president of Libbey-Owens-Ford, describe manufacturers' plans to participate more effectively and cooperatively in the affairs of the industry as such a segment. As presently planned the council will be affiliated with The Producers' Council, but PC membership will not be required to join the housing industry group.

Portland Lender Ben H. Hazen, former US Savings & Loan League president, outlined the importance of a plentiful mortgage money supply to a healthy housing industry, suggested that manufacturers might help swell the total if they invested some of their own pension funds in the field. Other speakers

continued on p 66



RESIDENTIAL BUILDING COSTS rose to 290 for June on Boeckh's index, a 1.8 point hike from the May figure of 288.2. "It was practically all in labor," says Col E. H. Boeckh. "Materials hung steady, except for a slight drop in lumber when dealers slacked off buying."



MATERIALS PRICES held steady in June at 135.8 on BLS' index, no change from the revised May figure. Only movement was a half point rise in lumber, offset by a drop in nonmetallic minerals. Revision of the May lumber index accounts for the change there, too.

*Such approval is not mandatory, but because it practically assures acceptance of building materials in some 400 communities which use the code, most manufacturers find it an important competitive factor.

included Richard Hudson, vice-chairman of the National Housing Center, Economist Miles L. Colean, President Joseph A. Grazier of American Radiator & Standard Sanitary Corp, all members of HIC's executive committee. Also on the executive committee:

Melvin H. Baker, chairman, National Gypsum; Harold Boeschstein, president, Owens-Corning Fiberglas Corp; Henry A. Bubb for the US Savings & Loan League; William A. Clarke for the Mortgage Bankers' Assn; Harry Held for Natl Assn of Mutual Savings Banks; Milford A. Vieser for the Life Insurance Assn; Builder Nels G. Severin for NAHB; Realtor Alexander Summer for NAREB.

Asphalt roofing price war

A price war stemming from what the industry delicately terms "misclassification of accounts" (ignoring distribution channels) has put asphalt roofing in the curious position of cutting prices at a time when demand for roofing is the highest in several years.

Major producers have cut prices 6% to 15%, depending upon the market area. They claim there are too many operators in the business, some selling direct to retailers at factory prices, bypassing wholesalers.

"We had to cut our published prices to meet the ones we found were not being published by some competitors," says one Midwest firm.

Plywood tariff relief refused

Hardwood plywood producers, a segment of the building materials industry that is among those hardest hit by imports (*May, News*), have lost their battle for higher tariffs

against competition from foreign producers.

In a 4-2 decision the Tariff Commission 1) found imports do not cause or threaten injury to the industry; 2) refused further restrictions beyond the present 20%-25% ad valorem duty.

Outraged cries from the Hardwood Ply-

wood Institute called the decision "inexplicable," all but accused the commission of rigging the evidence.

"The effect," says Clark McDonald of HPI, "is to nullify the escape clause provision of the Trade Agreements Extension act." It is, however, subject to review by the President.

LEGISLATURES:

California bans bias in FHA-VA tracts

A law banning racial discrimination in sale or rental of any publicly assisted housing—including FHA and VA tracts—has been enacted in California.

Only qualification is that the publicly assisted units be in groups of five or more. (The law does not apply to the Cal-Vet loan program.) Discrimination because of race or religion is also forbidden in any housing granted tax exemption (except veteran's exemption) or in a redevelopment area.

The law even prohibits a broker or builder from inquiring as to the race or religion of a prospective buyer.

Violators would be brought into court only on complaint of the offended party. The latter can get an injunction to stop the discrimination, can also collect damages of not less than \$500—the court to set the amount.

The California legislature also:

- Placed advance-fee operators under supervision of the state real estate commissioner. Advance fee dealers have reaped a bonanza in the past three years, collecting fees from persons wishing to sell business properties. They promise to advertise the property na-

tionally. The ads, placed in insignificant periodicals, seldom bring results.

- Streamlined the cumbersome California urban renewal procedure by cutting out one of the three phases any plan must go through.

Trade-in tool for S&Ls

An important new tool for trade-in house financing has been given state-chartered S&Ls in Illinois by the state legislature.

The change in the law now lets the S&Ls make 80% unamortized 18-month loans. Volume of these loans, together with other unamortized 50% and 60% loans running up to five years, cannot be more than 15% of total assets.

This change in the law is one of five proposals made by HOUSE & HOME in January as a means of spurring trade-in sales. The Illinois law will let an S&L make the short-term loans on a builder's or realtor's revolving inventory of trade-in houses, as well as individual homes. But it overcomes the problem of tying up large sums of capital in the inventory.

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PEOPLE:

Dick Steiner quits as URA boss

A chain-reaction job shuffle has brought these major changes to the command of US efforts to fight slums:

• **Oliver C. Winston**, long one of the nation's prominent figures in public housing, took a \$25,000-a-year post as executive director of a privately-backed renewal program in Binghamton, N.Y. after his forced resignation as the \$18,000-a-year head of Baltimore's Urban Renewal & Housing Agency.

• **Richard L. Steiner**, onetime (1946-54) head of Baltimore's old Redevelopment Commission (forerunner of the agency headed by Winston), quit as federal Urban Renewal Commissioner to succeed Winston—at \$20,000 a year.

• **David M. (for Maurice) Walker**, regional HHFA administrator in Philadelphia, was appointed URA boss (\$20,000 a year also) to succeed Steiner.

Walker, on whom the eyes of slum fighters now will focus, is a Philadelphia-born Republican politician who went to work after he graduated from high school and wound up as state secretary of labor and industry under GOP Gov John Fine.

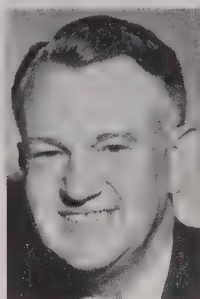
Along the way he 1) studied commercial law and insurance nights at the University of Pennsylvania, 2) set up his own insurance agency and became a director of two insurance companies, and 3) acquiring a technician's background in housing. In 1943, when the city was still governed by Republicans, Walker was named manager of two housing projects for the Philadelphia Housing Authority. In 1946, he was named administrative secretary of the Philadelphia Redevelopment

Authority. Next year, he became executive director. He also held the unpaid job of secretary of the zoning board of adjustment.

As regional HHFA chief for the last 4½ years, he has won the respect of renewal experts as an astute operator who gets things done. Says one of the city's top private men in redevelopment: "It was the best appointment a Republican administration could



STEINER



WALKER

make. Most people in redevelopment are Democrats, usually because big cities are involved and because renewal is a facet of the 'liberal' approach. The Republicans didn't have too many people to choose from if they were picking a Republican for the job. It's a blessing a lame duck Congressman or some such didn't get the nod. Dave is aggressive and he has ideas and will take chances to get things done." Says **William L. Rafsky**, city housing coordinator: "... a fine choice. Dave has real insight into the problems."

At 50, Walker stands 5' 9½" and still carries the solid (170 lbs) build of a former football player (high school and semi-pro). He has dark red hair, sharp blue eyes, a quick smile, and resonant public speaking voice. He lives with his wife, Kay, and two daughters in a suburban split-level house, likes to play golf (mostly in the 90s), go deep sea fishing (bluefish and tuna) and play cards (bridge, gin rummy, pinochle).

Walker takes over with professed zeal to cut down the red tape that many a critic charges is keeping renewal projects from getting started. But he puts it gently: "I'm not too impressed with paper processing up to loan-and-grant. It's when the improvement comes into being that counts. I want to emphasize completion, not just plans."

Any other changes in mind? "I want to spend some time assisting cities in bringing workable programs into reality," answers Walker, equally gently. (Many a city is coming under attack for faking the reforms and extra efforts it promises in "workable programs" to qualify for federal handouts for renewal and public housing—(see p 60) Walker has told friends he expects to return to Philadelphia at the end of the Eisenhower administration.

Steiner, 45, has headed URA in Washington for 2½ years. He was top deputy for 2½ before that. HHFA administrator **Norman Mason** calls his decision to return to his native city "a real loss." But by leaving now, Steiner insulates himself from the fortunes of politics in the next presidential election.

The Urban Renewal Administration's new assistant commissioner for operations is tall (6'1"), solid (215 lb) **Chester H. Knowles**, 60, veteran business executive and, through

continued on page 70

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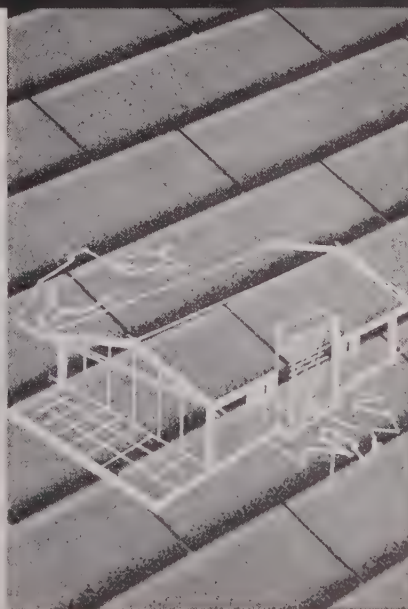
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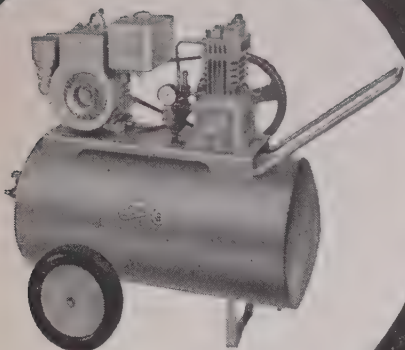
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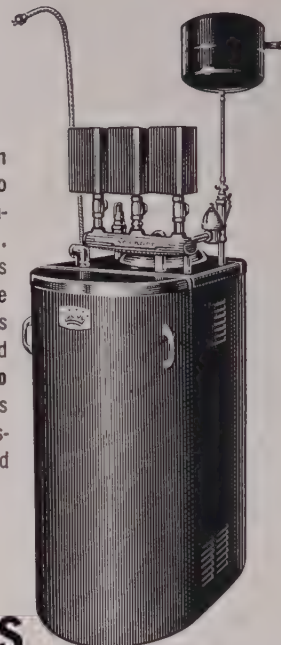
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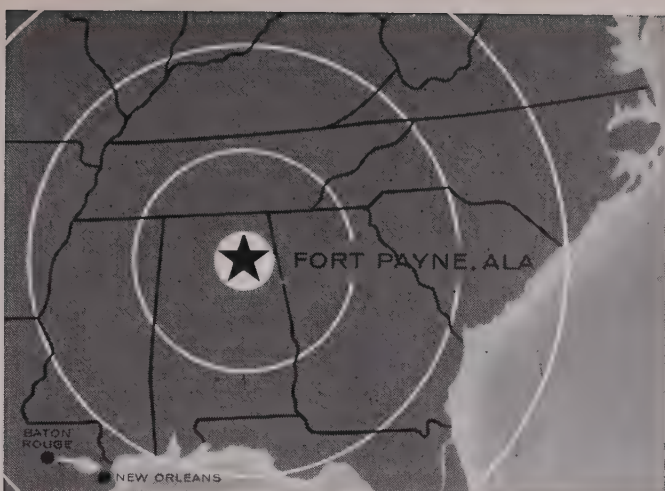
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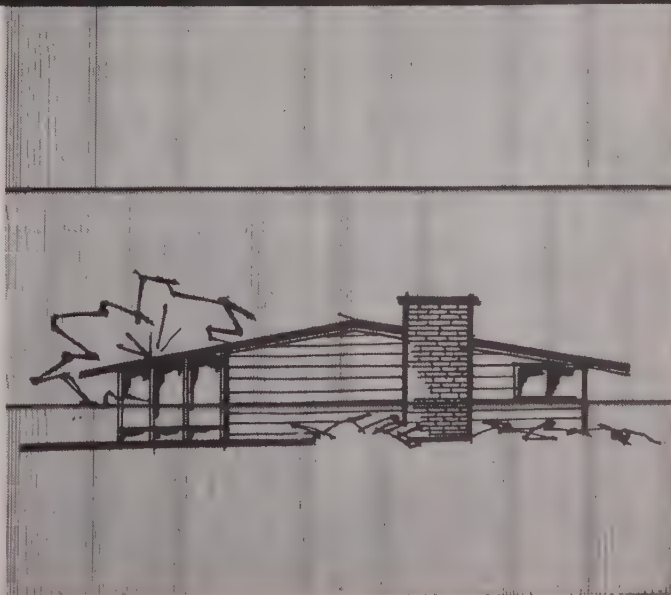
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his chief hobby, a shirtsleeve expert on rehabilitation. A native of Tacoma, Knowles developed an early respect for woodlands, has much the same respect for buildings. "To me," he says, "a structure is like a tree. If it has any soundness in it I hate to see it go." He has suited action to this philosophy while living in California, Virginia, Connecticut and New Jersey by buying and rehabilitating old houses, then selling or renting all of them at a profit.

Knowles served in the Navy in World War 1 and as a lieutenant colonel of Marines in World War 2.

For the last ten years he headed operations and sales for the household division of Permutit Co. makers of home water-conditioning equipment.

At FHA, **Willam Painter**, commissioner for Zone I (New York, New England) becomes assistant commissioner for programs, replacing **Dr Martin Ream**, who resigned in February to take on a private research assignment.

Joseph R. Ray Sr, race relations adviser to the HHF Administrator since 1953, has switched to the newly created post of assistant to the administrator for youth fitness.

Evans cracks whip, draws fire in Crane shakeup

Vigorous efforts of Crane Co's new chairman, Industrialist **Thomas M. Evans**, 48, to pull the big plumbing fixture maker out of a profit powerdive (down 55% in three years) have begun to hit opposition from the very people who helped him take control three months ago (*June, News*).

Latest development is the firing of **Robert**

B. Crane, 28, great-grandson of the founder and a director of the company, from his job as assistant vice president for criticizing Evans' drastic revamping of the firm and publicly expressing interest in the presidency.

Taking two days a week from his chairmanship of Pittsburgh's H. K. Porter Co, Evans has:

- Realigned marketing emphasis, lopping off 44 company-owned wholesale outlets and replacing them with 136 independent jobbers, created a new sales division to boost the setup, and raised speculation about how long the company's 97 remaining branch outlets will survive.

- Reduced capitalization by retiring a third of the company's common shares (some 766,000 at \$45 each) after redeeming \$14 million in debentures, using cash on hand and a new \$35 million line of bank credit for the purpose.

- Trimmed some 55 of 300 executive office employees, laid off 700 at the Chicago plant, hired **Wesley A. Songer**, former executive vice president of American Safety Razor, to fill the same post, newly created, at Crane.

Reaction to this vigor was quick and not unmixed. First rumbles came as two more directors followed former President **Neele E. Stearns** in resigning from the board. Among those reportedly disenchanted with the company's sudden constriction is **Alfons Landa**, chairman of Fairbanks Whitney Corp, who helped 6% shareholder Evans to extend his influence to a controlling 25%. Landa, along with young Crane (who represents family shares that were also behind Evans) joined the board when Evans took over. Now, though Evans discounts the idea, Landa's aides have indicated his dissatisfaction might take the form of a battle in the directors'

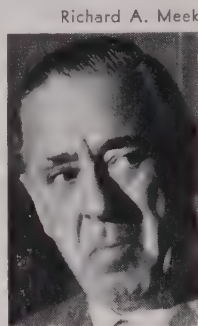
meeting late this month. Rumored Landa candidate for president: **Robert Crane**. For chairman: **Landa**.

Chicago's sand & gravel giant seeks new horizons in merger

Chicago's **Col Henry Crown**, who in 40 years built a \$10,000 shoestring into a basic materials empire worth \$100 million, has succumbed to the urge to merge.

His Material Service Corp (sand, gravel, coal, and cement) has become the eighth division of sprawling, \$500 million General Dynamics Corp (planes, missiles, subs, atoms, gas, and electronics). Crown, 63, gives up control, but not management of the company he and two brothers started with \$7,000 of their own and \$3,000 in borrowed cash. He remains as chairman of the division, which will be kept with personnel, policies, and programs intact, says **Frank Pace**, chairman of General Dynamics. In return, Crown & family get a sizeable chunk of General Dynamics stock (estimated at 10% of outstanding shares).

For General Dynamics, the move is part of a program to balance its heavy defense investment with an equal amount in "general commerce." For Crown, "what we are interested in is the achievement that the two companies can attain together which individually would be much more difficult. This



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merger gives us a chance to expand horizons. I can't imagine a more perfect balance . . . than the one we have got by merging with General Dynamics." One item that snares Crown's interest is GD's advances in industrial use of atomics. Another: "Only a few days ago, we tried something new . . . used a helicopter to deliver concrete to the roof of a building we were constructing. I guess it is a view of the future . . ."

Viewing the future is nothing new for Crown, son of a Lithuanian suspender factory foreman, who at 22 plunged into the murky jungle of Chicago construction, built his company to undisputed ruler of the basic materials field, credited by competitors with commanding half the market there. On the side, Crown has plunged in other areas, built personal holdings estimated at well over \$50 million. They have included ownership of the Empire State Building, co-control of the Rock Island Railroad, \$6.4 million in Hilton Hotels Corp. Among the assets in MSC are a fleet of 68 barges, three coal mines, eight limestone quarries, nine sand and gravel pits.

"The chief effect [of the merger] on the operations of Material Service Corp.," says Crown, "will be simply to make them bigger and better."

Walter Onslow, 53, massive, genial public relations counsel to NAHB since 1946, resigns this month to devote full time to working as a public relations specialist for the housing industry. During his 12 years with the association, he also managed program arrangements for the annual convention, in 1948 launched and has since directed National Home Week. A graduate of the University of Minnesota ('30), he worked on the

Minneapolis *Journal* and Washington *Post*, spent eight years in public relations for PWA's public housing division and the Interior Dept, then spent five years with NAREB before joining NAHB. The friendly parting of the ways comes, says Onslow, from a conflict between his own desire to develop opportunities he sees in the '60s housing markets and NAHB's request that he drop his other clients to devote full time to association affairs.

George O. Prussell has quit as executive vice president of the Los Angeles Home Builders Assn after six years. He has joined Volk-McLain Co, big LA builder, in an executive capacity.

The HBA, formerly the Home Builders Institute, ended its last fiscal year in the red. It has no immediate plans to replace Prussell.

Prussell follows into private industry a one-time adversary — **Harry Stewart**, former executive vice president of the Building Contractors Assn, now general manager of DEK Industries. HBA and BCA were once both NAHB affiliates, were ordered by NAHB to get together but didn't. NAHB revoked the BCA charter in 1958. The rivalry between the two has become even sharper since then. Both still claim to have won the contest for builder-members.

DEATHS: **Waldo B. Christenson**, 50, FAIA, former president ('48-'50) of the Washington State chapter and a regional director ('53-'55), May 16 in Seattle; **Thomas I. Parkinson**, 77, retired ('54) chairman of Equitable Life Insurance Co who in 26 years built the firm to the nation's third largest,

led it to financing of public housing and office projects, of a stroke June 17 in his home in West Islip, L.I.; **Patrick T. Jackson**, 87, retired ('58) chairman and founder of American Sisalkraft Corp, June 22 in Boothbay, Me.; **Earl M. Rooney**, 62, advertising manager of Weyerhaeuser Sales Co since 1936, of a heart condition in St Paul, Minn.; **Arthur F. Brinckerhoff**, 79, distinguished New York landscape architect from 1902 until his retirement in 1957, June 30 in Redding, Conn.

CANADA:

NHBA ups starts forecast, sees near-record year

Builders now concede this may be the second best year Canadian homebuilding has ever had—despite tightening mortgage money.

NHBA has again revised its starts outlook. After once predicting only 67,000 starts and boosting this to 100,000, NHBA says now starts could reach 143,000 this year (vs last year's record 164,632). Its reasoning:

1. Conventional lending, at 6½% to 7½% remains strong, seems sure to account for 85,000 units, same as last year.

2. NHA commitments made earlier in the year will help hold this portion of starts up into the fall.

3. The government is still expected to release most of the \$289 million it has for direct NHA loans. (Private lenders have about quit making new NHA commitments because of the frozen 6% interest rate.)

Builders are so concerned about the lack of flexibility on CHA loans, many are now endorsing the practice of discounts—now banned on NHA loans.

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Where you need ventilation other than over the cooking area there's a Miami-Carey Fan

of the proper size, finish and style for that purpose, too. For freshening the air in kitchens, playrooms, bathrooms and other locations you can select a Miami-Carey Fan with just the right characteristics. For example, the Miami-Carey Bathroom Ventilating Fan is just right for removing steam and odors quickly, yet is whisper-quiet in action.

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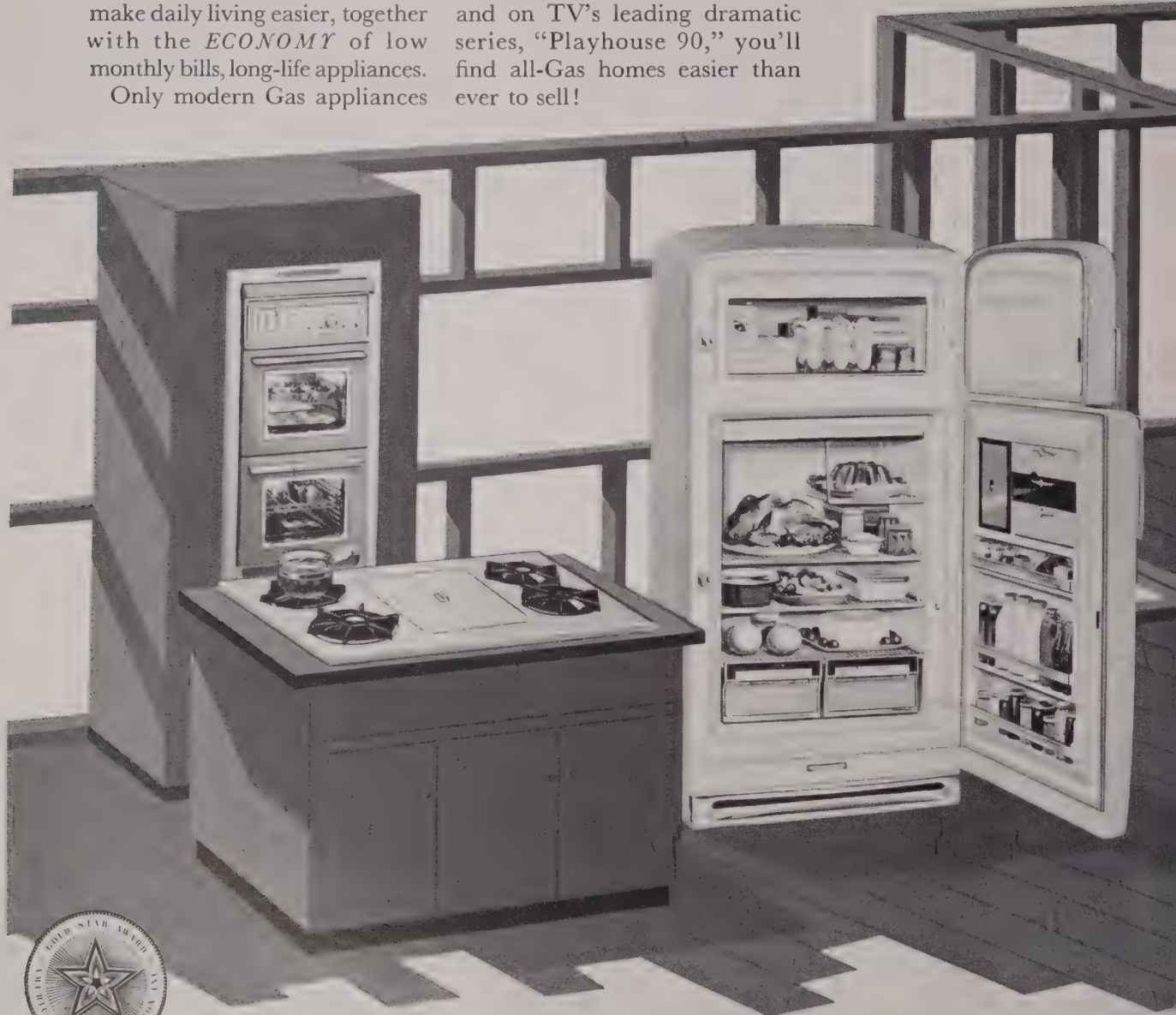
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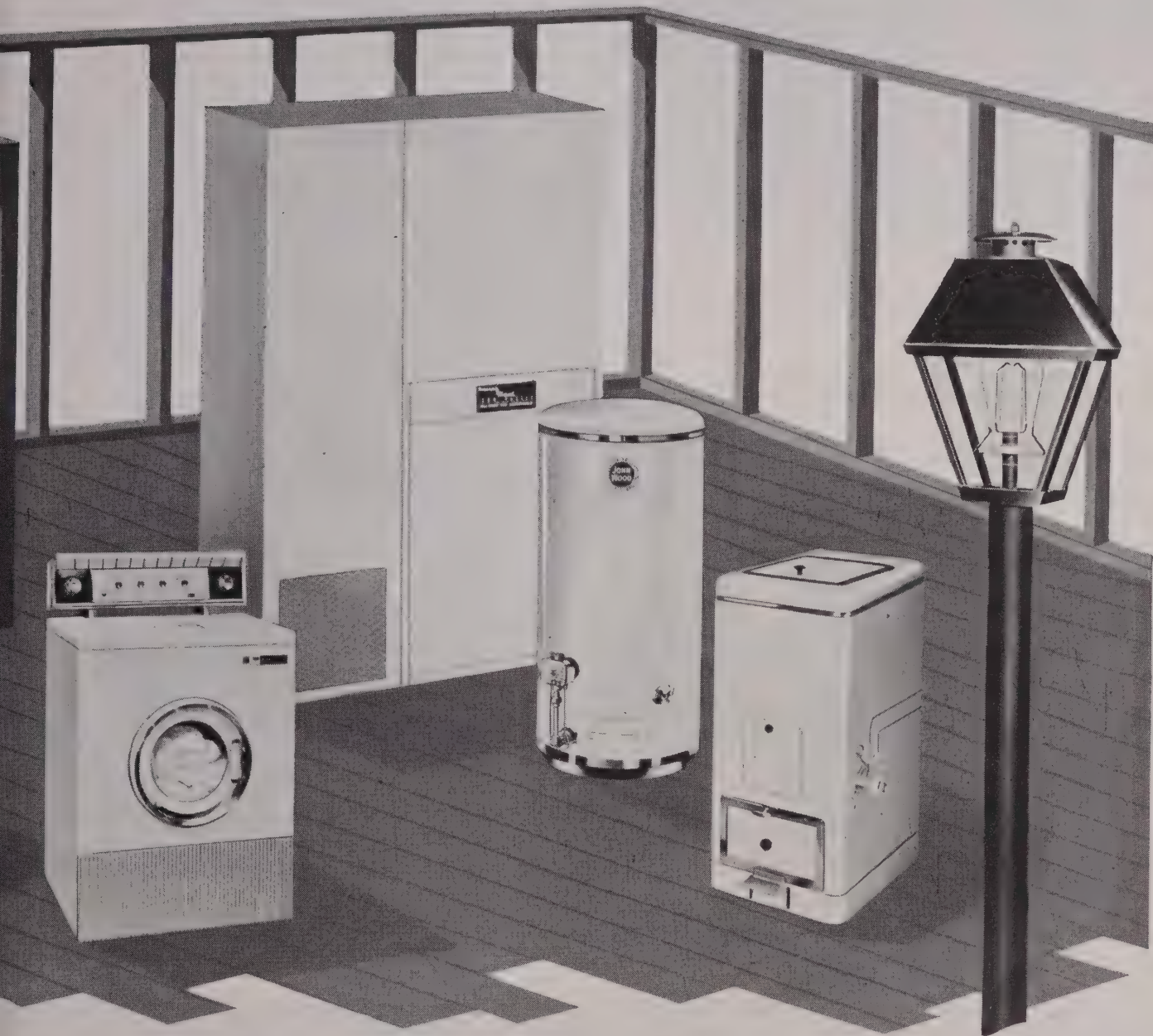
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Records prove today's home-buyers want year-'round air-conditioning. A Gas unit is a real money-saver—cools every room in the house, yet keeps monthly bills low . . . lower than many may be paying to cool one or two rooms. And in winter it heats the whole house. One easy-to-install thermostat. Long warranties. Choice of sizes.

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Always enough for baths—even on washday! True luxury! A modern Gas water heater heats more gallons per hour than any other kind. Goes to work the moment more hot water is needed. Shuts off automatically, too. Costs less to install and use, because it's Gas. Trim, compact models, sizes to fit every home.

SMOKELESS, ODORLESS GAS INCINERATOR

Here's the cleaner, healthier living every home-buyer wants. No garbage carrying, no refuse piles waiting for collection. And there's never any smoke or odor with a Gas incinerator. The flame itself consumes all smoke, all odors. This is the height of luxury—for pennies a day!

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AMERICAN GAS ASSOCIATION

much more...for so much less!



Designer-Builder: Cliff May Associates
Owner: Cliff May
Location: Sullivan Canyon, West Los Angeles, California

Cliff May, leading designer-builder, gets quality construction at no extra cost with **KEYMESH® LATH and KEYCORNER**

"Houses with plaster walls and ceilings give owners greater value," says Cliff May, internationally recognized for his bold imagination combined with practical use of materials. "Plaster is a quality feature that is most effective in my selling. I reinforce ceilings of large span with Keymesh over gypsum lath; corners with Keycorner. As evidence of my belief, I used this construction in my own new home in Sullivan Canyon, California.

"The result is probably the finest plaster job in the West. The reinforcement has been so outstanding that we do not have a crack in the entire house, although we have over 7,000 square feet of area and many experimental types of plastering, such as different textures and different aggregate compositions.

"I use my home as a model home. Clients are quick to recognize the added, although hidden, value of Keymesh and Keycorner reinforcing. The thick, reinforced walls and substantial plaster construction are big selling features."

For more complete information on Keymesh and Keycorner lath, write



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 Photos by Maynard Parker. Reprinted through courtesy of Sunset Magazine.



THE MASTER BEDROOM is a comfortable studio during the daytime. Acoustical, Keymesh-reinforced plaster on ceiling adds soft beauty, assures quietness.



THE KITCHEN serves as both a working and a social area. Keymesh-reinforced plaster on walls and ceilings dramatizes the livability of this room.



THE TEXTURED-PLASTER ceiling unites the indoors with the outdoors in the master suite living area (*Below*). Keymesh used over gypsum lath in this construction.



THE INDOOR-OUTDOOR appearance of the May home extends even to the dressing room. Here, Keycorner was applied in corners over Keymesh for added strength.



THE ROUGH-TEXTURED plaster ceiling is ideal for the boy's bedroom. Keymesh and Keycorner are adding superior crack resistance to this construction.



**"NO, YOU CAN'T TAKE IT
WITH YOU"**


But, Brother, you can sure enjoy it here when you put Bird Wind Seal Shingles on your homes. People know 'em. People like 'em. People read about 'em in The Saturday Evening Post. People pay more for Wind Seals—willingly. FHA accepts 'em. Use Bird Wind Seals to show your prospects you've put quality even in the hidden parts of your homes. Sales come easier.



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BIRD
Wind Seal Shingles



who
is
this
man?

what can he do for you?

HE IS YOUR LENNOX

His service and experience will



as a designer:

Your Lennox Comfort Craftsman's comprehensive training by Lennox engineers in factory schools qualifies him to pre-plan with you right from the blueprint stage. His knowledge of heating design can save you time and money. Because he's an expert, he *custom designs* each heating installation to satisfy the individual needs of each home that you build, based on style of house, climate—even the living patterns of today's families.



as a businessman:

Your Lennox Comfort Craftsman is in business to stay. He knows that prompt, perfect installations geared to *your* building schedules are important to his continued success. He *deals direct* with the Lennox warehouses and factories throughout the U. S. and Canada. This enables him to *get and give faster deliveries*. You can count on him to be on the job on time, and to stay there until the job is done exactly!

COMFORT CRAFTSMAN

save you time and dollars!



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Your Lennox dealer knows that installing a heating or air-conditioning system is more than a simple "plug in" job. Therefore, he personally custom-engineers each job with a Craftsman's dedication. That requires not only skill, but a complete assortment of heating or cooling units. *He stocks the world's largest heating and air conditioning line,* from which he selects the exact combination that is best suited to comfort condition your homes.



as a salesman:

Your Lennox Comfort Craftsman's job isn't done until you've made the sale. Even then, he helps you keep your customers sold with a follow-up service program that lasts until he's satisfied the heating unit is operating perfectly. He also supplies professionally planned advertising materials, in-home displays, *personalized* builder brochures and billboards. His service program and merchandising aids make home selling easier for you.

... and your Lennox Comfort Craftsman lives by this philosophy!



*"Quality goes beyond
quality product ..."*

"Customer satisfaction has always been the ultimate Lennox goal. But satisfaction is a result of not only the product and the comfort it provides, but of the servicing of that product as well. That's why we at Lennox are so particular in the selection of our Comfort Craftsmen.

"That's why we go overboard in training. No one else in the industry gives their dealers such comprehensive factory-engineer training. As a result, Comfort Craftsmen become *experts in installation* and heating design, and *experts in service!*"

"The quality and degree of the Comfort Craftsman's service is best exemplified in the Comfort Craftsman creed which every Lennox dealer signs and lives by. IT'S YOUR ASSURANCE OF SATISFACTION AND DEPENDABILITY WHEN YOU DEAL WITH A LENNOX COMFORT CRAFTSMAN!"

John W. Norris

John W. Norris, President
Lennox Industries Inc.

The Lennox Comfort Craftsman Creed

In consideration of being authorized to display the shield of The Lennox Comfort Craftsman I, the undersigned, am pledged to:

- 1 Carefully custom-engineer each Lennox heating or air conditioning installation;
- 2 Accurately calculate the heating or cooling load in order to correctly specify the proper capacity Lennox equipment;
- 3 Use the greatest skill at my command and my Lennox training in the installation and adjustment of Lennox heating and air conditioning equipment;
- 4 Apply my sincere best skill and Lennox standards in the service of such installations;
- 5 Increase my proficiency in heating and air conditioning technology through regular attendance at Lennox dealer schools;
- 6 Maintain a clean, orderly, attractive place of business;
- 7 Conduct myself and direct my employees so that at all times my operation is a credit to myself, to my community, and to Lennox;
- 8 Combine engineering skill, business integrity, sales aggressiveness and a spirit of service so as continuously to qualify for the title of LENNOX COMFORT CRAFTSMAN;
- 9 Relinquish my Comfort Craftsman identification whenever my operation fails to meet the exacting standards of the Lennox Comfort Craftsman Program.



Firm Name

LENNOX

*World leader in indoor comfort
for homes, business, schools*

FHA's future

HOUSE & HOME [June] points to the need for a thorough overhaul of FHA (and other government housing) policies and goals. The basic aims of FHA were set during an era of excess bank reserves, low interest rates, massive deficiency in the housing supply, unemployment, and a paralyzed mortgage market. Since then, at least three important changes have occurred:

1. Confidence in private real estate has been restored, and the value to the lender of government mortgage insurance seems to have diminished. The difference in yield between FHA and conventional mortgages has narrowed over the years.

2. Capital shortages, rather than surpluses, have marked most of the past decade and may be a persistent feature of the future. Under such conditions, legislated mortgage credit terms are frequently ineffective and may even do harm.

3. Improvement in housing standards has been so general that future housing aids might well become more selective, ie concentrate more on problem markets: minorities, the elderly, the dislocated, etc.

Congress has attempted to deal with changing times by patchwork adaptations. So housing laws are a bewildering maze to all but the professional. A simplification of government aids is urgent. The CED monetary study and the proposed commission on metropolitan and urban problems seem to be appropriate means for such a review.

LOUIS WINNICK, research division director
New York City Planning Commission

Over 121,000

Congratulations on your passing the 121,000 circulation mark. H&H is superlative. I wouldn't be without it. Editorially couldn't be beaten. Virtually a work of art and "see-it-do-it" material.

C. J. WAGEMAN
Madera Land & Sales Co
Madera, Calif.

Built-in electronics

Your article on "hi-fi" installations in new homes [H&H, June] was satisfying even to dedicated sound engineers like us. Our faith in the technical competence of H&H was confirmed by your sortie into the complex field of custom sound.

PETER FORD
Custom Sound Associates
Mobile, Ala.

Taxes vs slums

You put your finger on a major source of difficulty in urban renewal [News, July].

A sovereign power should not allow improper use of land—and certainly not encourage it with condemnation awards. Yet, as you point out, this is precisely what is happening.

From a return point of view, the best use of property may be an overcrowded tenement. But I know of no other area in our economy where the return is the sole determinant for the standard.

I am a member of Governor Brown's Commission on Metropolitan Area Problems and intend to press the point which you have raised so well.

CHARLES WELLMAN, executive vice president
Glendale (Calif.) S&L Assn



Kids Welcome

Mothers love
luxurious wood
that requires
no upkeep...

Mellows
with age...



Paneling of Indestructible Beauty

Sell the woman and you've closed the deal! And just watch her sales resistance melt when she learns the good news about rich, selected Philippine Lauan mahogany paneling. Costs only about one-fourth what she normally pays for the carpeting on her floor. Scratches disappear with simple waxing. Its Super Satin Surface gives hand-rubbed brilliance and smoothness without sanding, buffing, priming or preliminary coats. And its beautiful imported mahogany face is bonded to domestic Douglas Fir plywood, for lasting sturdiness. In 4'x8' sheets, it covers a lot of wall in a little time. May we send you a free sample?

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- ☐ Free sample of wood with SSS.
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*"Super Satin Surface" and "T" are trademarks owned by C Corp.

Eye appeal that spells "buy" appeal

Look to Briggs Beautyware for the features home buyers want most



There's potent sales appeal in a Briggs bathroom. The new Briggs bathtub, for example, is excitingly sculptured in six glamorous colors of lustrous, stain-resistant, enameling iron. Its exclusive porcelain finish and cleanly functional hardware design (with color inserts to match the fixtures) have both eye-appeal and simple maintenance. Slip-resistant bottom, to be sure!

The merest flick of mop or broom cleans beneath the Briggs "King." No awkward dust-catchers or hard-to-reach space—a feature housewives will appreciate. Six glamorous colors, non-fading vitreous china.

Smart new fitting arrangement of Briggs "Chaucer" features unique spray spout. The "Chaucer" gives you great flexibility. It may be installed on cabinet, as shown here, built into a vanity or put on legs.

For homes modern today, modern to stay, install Briggs Beautyware. For full information, job-timed deliveries, contact your plumbing distributor or Briggs representative.

BRIGGS

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FROM THE LEADER-

**a hardwood block floor
you can use with
complete confidence !**

**NATURAL OR
DARK TONES**

*Available in warm
light natural oak
or a rich dark
tone for use in
combination as shown
here or alone . . .
in any way a
beautiful floor!*



***NEW Superior Milling - *NEW Superior Finish**

Pioneering in the development of laminated hardwood flooring, Higgins has become the world's largest manufacturer, setting standards of precision milling and durability of finish often imitated but never duplicated. Now, after continued progress in research and development, after delivery of more than 60 million square feet to builders everywhere, Higgins proudly announces new advances in the manufacture of Higgins Oak Block.

***NEW SUPERIOR MILLING:** No Higgins Block may be approximate in any of its dimensions—at every step in the manufacturing process accuracy and precision are insisted on. Higgins designed and built machines and cutting tools of tungsten carbide—not steel—guarantee uniformity and exactness. If you have been troubled with high-and-low, out-of-square, deep-chamfered blocks in the substitute brands, switch to Higgins *precision-controlled* blocks now for speedy, trouble-free application.

"HIGGINS FLOORS SELL HOUSES"
has long been a buy-word in the housing industry. You owe it to yourself and your customer to be sure with

Higgins—the finest laminated block flooring now being made!

***NEW SUPERIOR FINISH:** The high quality oak in Higgins Block starts out together and wears longer than comparable veneers. Millions of pounds of pressure and controlled heat densify the wood to make it harder and more durable than any wood in nature. The Higgins exclusive 5-coat finish system includes isocyanate, an amazing new substance, plus an acrylic filler, which together wed the wood and become tough, long-wearing and satin smooth. Superior in every way to the so-called "luster" finishes prevalent today, this product of Higgins research and development is resistant to acids, alcohol and the household hazards, and is always lovely to behold. Here is all the warmth and beauty of genuine hardwood encased in a long-wearing, scuff and scratch resistant shield that gives lasting protection.

Higgins

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HIGGINS INDUSTRIES INC. — BOX 8169 — NEW ORLEANS 22 — PIONEERS AND
WORLD'S LARGEST MANUFACTURERS OF LAMINATED HARDWOOD BLOCK FLOORING



BUILT-IN REFRIGERATOR AND FREEZER BY REVCO, CABINETS BY WHITEHALL, BUILT-IN GAS RANGES BY CALORIC.

Caloric® GAS APPLIANCES

MEAN EASY LIVING...MAKE HOMES EASY TO SELL!



CALORIC GAS DISPOSER with Jet-Stream action burns everything but metal and glass. Lid locks automatically when dial is on. No smoke or odor escapes.

Designed for "home automation" . . . Caloric built-in gas ranges and disposers are now more automatic than ever. They make cooking and garbage disposal almost as easy as turning a dial! Install Caloric in homes you build or in the kitchens you remodel. Point out these important features to customers:

THERMO-SET TOP BURNERS keep food at the exact temperature set. Make every pan "automatic".
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ROTO-ROASTER lets the family enjoy juicy, flavorful barbequed meats all year 'round.

When you install Caloric you give home buyers the automatic features they're looking for, plus built-in kitchen convenience. Choose from 7 handsome finishes. And remind your customers that Caloric is "America's easiest range to keep clean." For further information on Caloric built-in gas ranges and disposers, write:

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Another new development using

B.F. Goodrich Chemical *raw materials*



Aluminum awnings and aluminum siding made by Hastings Aluminum Products, Inc., Hastings, Michigan, in a wide range of colors using coatings manufactured by Sherwin-Williams, Inc., Cleveland, Ohio, made with Geon. B.F. Goodrich Chemical Company supplies the Geon polyvinyl materials only.

Homeowners get new high in quality, new low in upkeep with... **aluminum siding coated with Geon**

Both the siding and awnings of this house are made of aluminum coated with Geon polyvinyl resin. They will not need painting for a long, long time because this Geon coating is really tough and durable. Both sides of the aluminum are coated before the siding and awnings are fabricated. Then the metal is formed, bent, punched and even applied to the house—all without affecting the appearance or performance of the finish.

Extensive laboratory and field tests have proved that this enamel-like coating made with Geon produces outstanding appearance, as well as wear-

and weather-resistance far beyond what is available from conventional finishes. The manufacturer warrants this finish against blistering, cracking or crazing for 10 years. All that's needed to restore its excellent appearance is periodic washing.

Coatings made with Geon offer superior abrasion, electrical and chemical resistance—reasons why Geon is often the key to a new or improved product. For more information, write Dept. FB-1, B.F. Goodrich Chemical Company, 3135 Euclid Avenue, Cleveland 15, Ohio. Cable address: Goodchemco. In Canada: Kitchener, Ontario.



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GEON polyvinyl materials • HYCAR American rubber and latex
GOOD-RITE chemicals and plasticizers • HARMON colors



GALAXY—BRIGHTEST STAR IN PLASTIC LAMINATES

This beautiful pattern, a Panelyte creation, has launched a whole new era in plastic laminates. Not only durable and easy to care for, *Galaxy* makes counter tops, sink tops, vanities and bathroom walls an outstanding style feature that can help you sell houses. Golden flecks, with a touch of silver,

make *Galaxy* Panelyte unique in its effect. And *Galaxy* is only one of many exclusive patterns. So "sell" to your next project by installing colorful, practical, style-leading Panelyte.

May we send you free samples of color-coordinated Panelyte? Write Panelyte Division, St. Regis Paper Company, 150 East 42nd Street, New York 17, New York.



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COVER:

House in San Diego.
Builder: American Housing Guild.
Architect: Henry Hester.
Photo: Douglas M. Simmonds.
See p 88.



Julius Shulman

Paved terrace is included in the price of this \$16,100 house built by American Housing Guild. Barbecue, outdoor furniture, and gravel playyard are part of model-house display planned to show prospects how much they could enjoy outdoor living.

Want to keep a step ahead of your market?

One good way is to provide indoor-outdoor living

"Indoor-outdoor living is neither a brand-new nor a radical idea—but capitalizing on it has certainly helped us sell more houses."

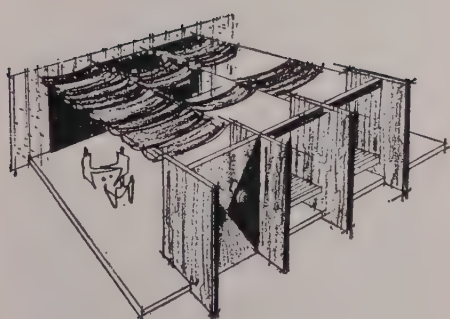
So says smart home merchandiser Martin Gleich, whose American Housing Guild (San Diego) grew from 40 houses a year in 1952 to over 650 houses last year, may hit 1,000 houses this year.

"Indoor-outdoor living is such a big sales asset," says Gleich, "because today's buyers want to do more living, dining, and entertaining out of doors. It has played such an important part in our own steady growth that we have made it our business to add something new to indoor-outdoor living in each new model line."

"Where do you start if you decide to add indoor-outdoor living to your houses? Back in 1953, we started by orienting our living rooms to the back yard. In the six years since, we have: 1) included paved terraces in the price of our houses, 2) landscaped the back yards, 3) put sliding glass doors in all models, 4) introduced many new models with rear-living plans [seven out of eight houses in AHG's present line have rear-living plans], 5) opened a profitless nursery to help our buyers landscape their lots at lower cost, and 7) added a model with two separate outdoor living areas [see p 92]. Next, we are going to roof over the terraces of all our model houses to show people how they can enjoy the outdoors even more [see p 95]." For a lot more ideas that will help you make the most of indoor-outdoor living, see p 96.

The gradual introduction of new ideas is basic to AHG's whole new-house-selling concept. "We don't believe in sticking our necks way out or in trying to 'revolutionize' housing. But we do believe in keeping a step ahead of the market by adding new features just as fast as the public grows to accept them."

So AHG not only offers better indoor-outdoor living every year, but also keeps adding new features inside the house (see p 90), and keeps introducing new houses to update its model line (see p 92). For a preview of the new ideas AHG plans to introduce next year, see p 94.





LIVING ROOM of \$17,200, four-bedroom house gets luxury look from fireplace, sliding glass doors, floor-to-ceiling windows, sloping ceiling.

To keep a step ahead of the market

Keep adding new features with visual impact to every room in the house



INSIDE BATH of every model has luminous ceiling, paneled walls, tub enclosure.

"We're probably the greatest readers of new-product columns in the housing industry," says Martin Gleich.

"We look for products or ideas that 1) make a visual impact on the prospect, 2) fill an important need or want in his life, 3) are usually found only in higher-priced houses, 4) can be added to all our houses.

"We don't add gimmicks. And we don't add things that are 'optional at extra cost'—everything we add is included in the sales price."

To keep from adding to his prices as he adds to his houses, Gleich plans his building and his buying to hold down the cost of new features. Examples: 1) he buys oversize brick for fireplaces, handles it by hi-lift; 2) he buys tub enclosures 1,000 at a time, to get the cost advantages of a volume price.

The photos opposite show some of the features AHG has added—one at a time, year by year.

Others (not shown) include acoustical ceilings, exhaust fans and heat lamps in bathrooms, vinyl tile in kitchens, garbage disposers, and aluminum screens.

These are the features
that appeal most
to AHG's buyers



TUB ENCLOSURE with folding vinyl curtain is custom-house touch in the bath.



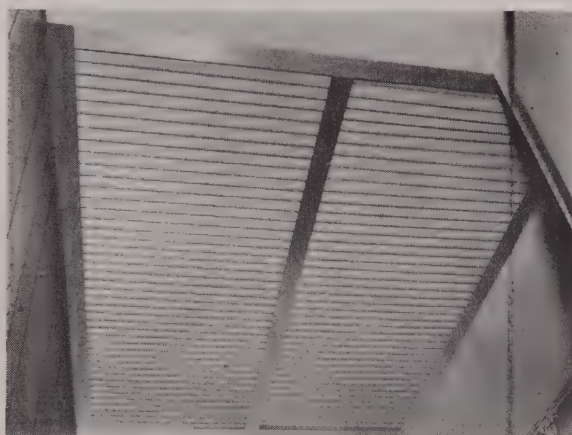
FIREPLACE, first in San Diego's under-\$14,000 market, was introduced by AHG in 1958.



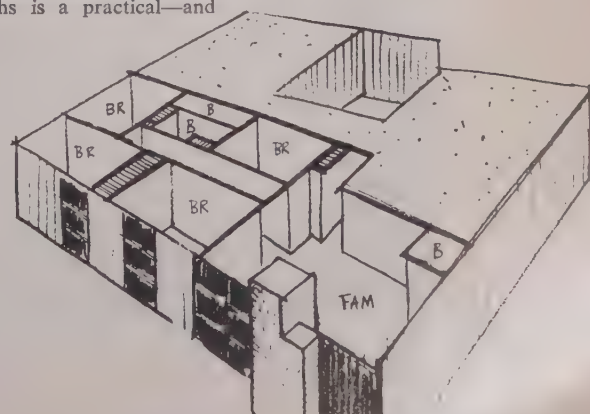
MAHOGANY PANELING with a waterproof sealer is used in the baths. AHG also has cedar paneling in all its kitchens.



BUILT-IN RANGE AND OVEN "really separate the new houses from the old."



LUMINOUS CEILING for inside baths is a practical—and glamorous—feature.



LIVING SPACE is the talking point of AHG's latest model. "Hacienda" has four bedrooms, 2½ baths, and a big family room.

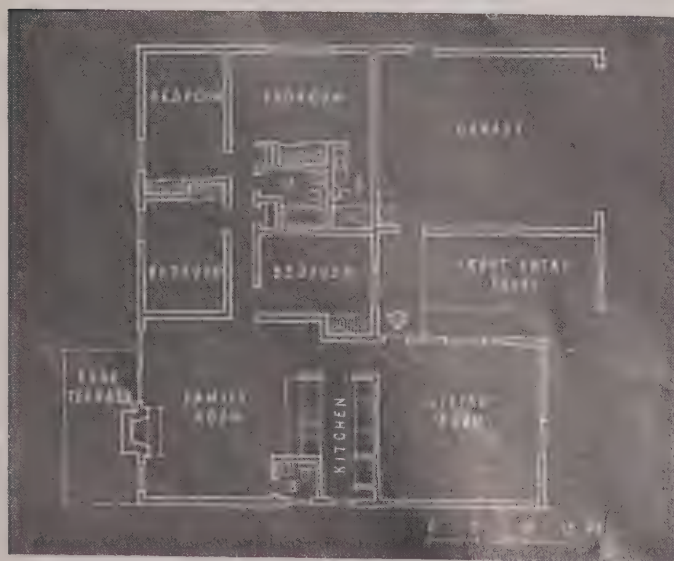
To see AHG's best selling model line, turn the page



NEWEST HOUSE in AHG's line is the \$18,850 four-bedroom "Hacienda." Fifteen sold before the model opened; it is now AHG's fastest seller.

To keep a step ahead of the market

Keep adding new models with new plans and update your line by dropping slow sellers



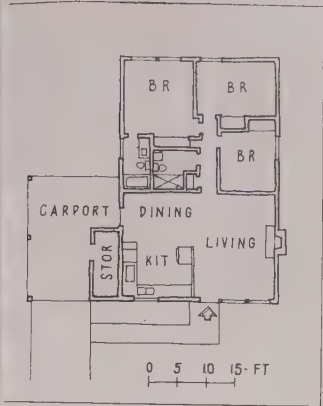
PLAN of newest house (photo above) includes two outdoor living areas—a front entry court and a rear terrace off the family room.

Every model in American Housing Guild's line is a fast seller. "It has to be," says Martin Gleich, "or it is dropped from the line."

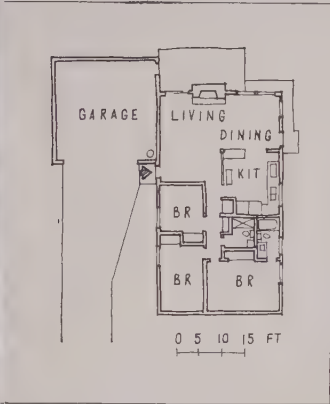
AHG updates its line of fast-selling houses by dropping models that show poorly on its sales chart, replacing them with models designed to meet growing buyer demands. (To find out what prospects will want or like, AHG polls buyers after they have lived in their new houses for a few months.) Three or four best-selling houses from previous years are always carried over into a new year's line. One house (second from top, opposite) has been in the line for four years.

Convinced that today's buyers are much too choosy to accept one or two floor plans with variations, AHG now offers eight different plans, will soon offer still more. The complete model line ranges from \$14,500 to \$18,850, has a plan to fit the requirements of almost any family. Example: AHG has two four-bedroom models, one with, one without a family room. "Hacienda's sales record," says Gleich, "indicates most people want both [see plan, left]."

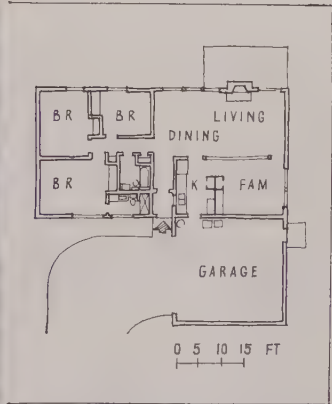
Here are the
fastest-selling models
in AHG's 1959 line



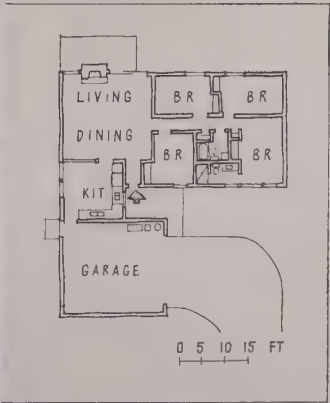
LOWEST-PRICED MODEL in AHG's line is this \$14,500 three-bedroom, two-bath house, designed for narrow lots. It is the only house in 1959 line with carport instead of garage.



MOST POPULAR HOUSE AHG ever designed is this \$16,100 model, introduced in 1956. Glass gable end opening living and dining areas to the backyard is its most popular feature, says Gleich.

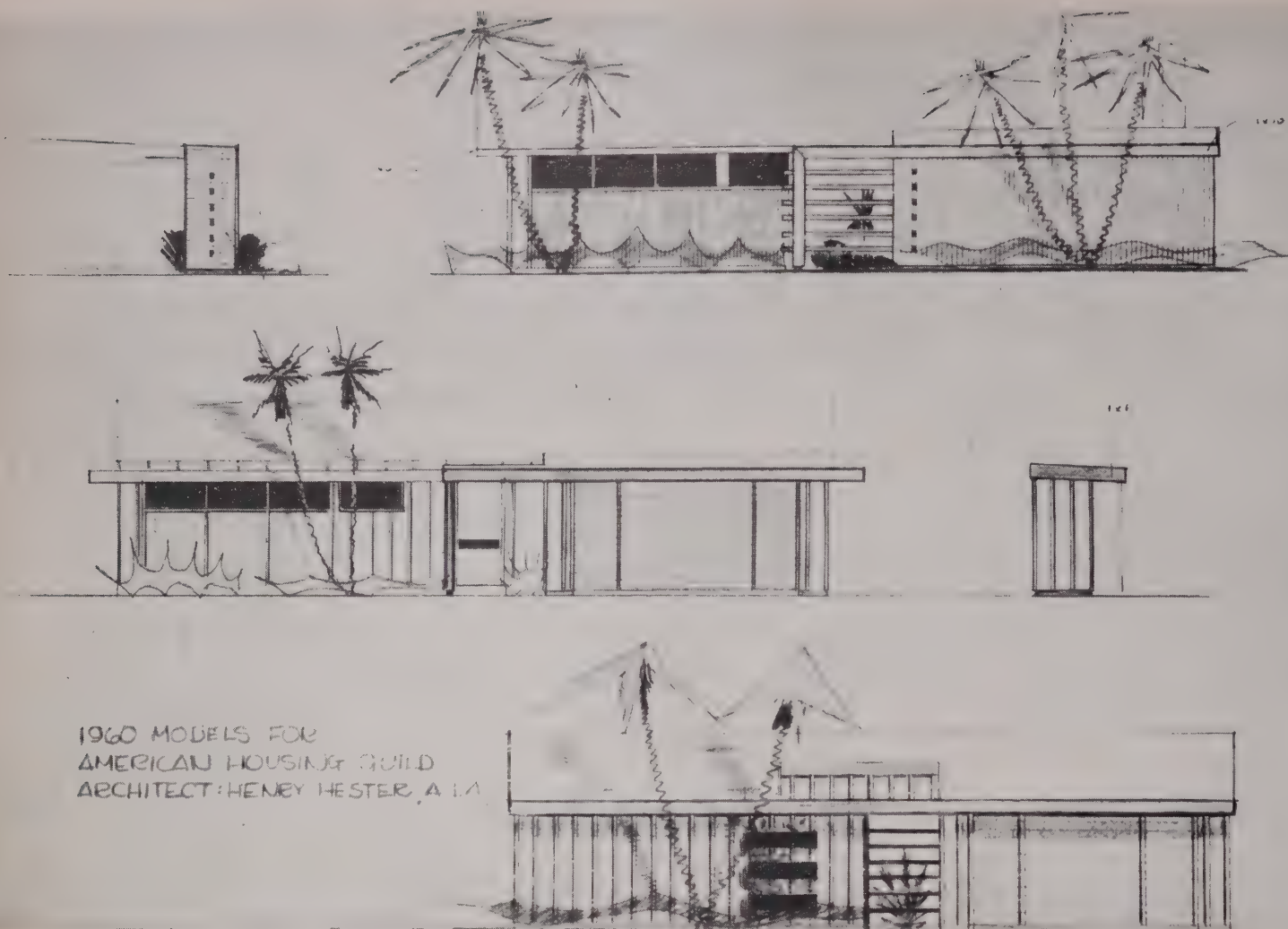


LAST YEAR'S BEST SELLER is a mainstay in 1959 line. Best liked features of the \$16,600 model are the family room and the big combination living-dining room. Kitchen is handy to entry and garage.



FOUR-BEDROOM \$17,200 MODEL, opened early this year, was fastest seller until "Hacienda" (opposite), which also has four bedrooms but also has a separate family room, was introduced.

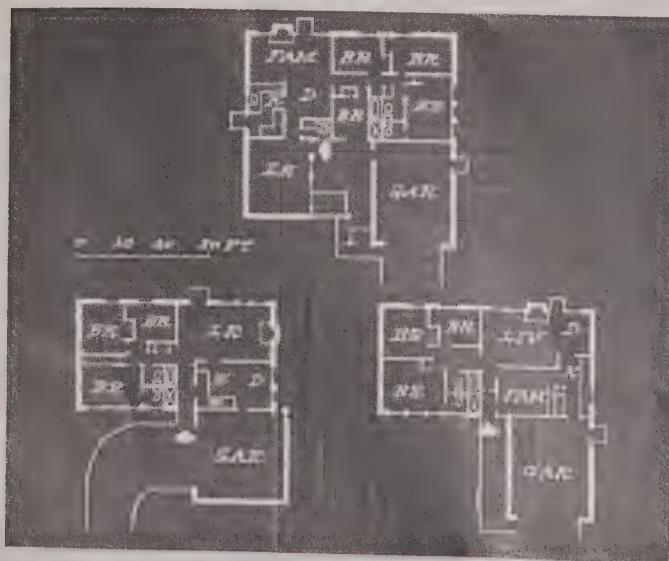
For a preview of AHG's 1960 line, turn the page



1960 MODELS have new elevations, higher roof pitches. AHG retained Architect Henry Hester, AIA, to add fresh design to its line.

To keep a step ahead of the market

Here are the new models and new features
that American Housing Guild will add in 1960



PLANS OF 1960 MODELS (shown above) provide bigger rooms, new features like wall-length closets in bedrooms, central heating.

At its "1960 opening" next month, AHG will introduce three new models, shown above, that are quite different in appearance and plan from its previous models. And these new houses will introduce more new features (see opposite) than AHG has added before at any one time.

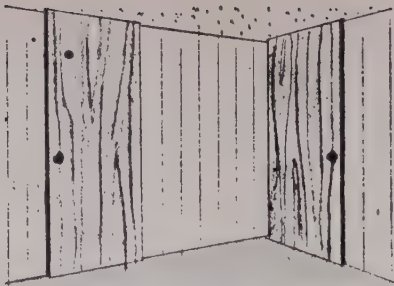
Why? Because AHG is upgrading all its models, broadening its top price level by more than \$1,000. Says Gleich: "There are three reasons for this upgrading:

"1. A survey of 1,200 buyers showed that they felt that a number of small features [like those shown opposite] would improve our houses. We decided to add them.

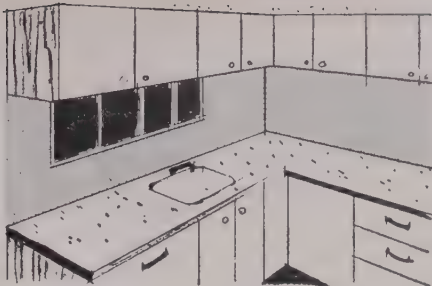
"2. People's incomes are going up. In San Diego, average weekly earnings increased \$10 between May 1958 and May 1959. Every other business index is up. Our lowest-priced house used to account for 25% of our volume—now it accounts for only 7%.

"3. Higher-priced houses will sell. This year our highest-priced house was the fastest seller for two months after it opened. The market is moving up, and we're staying just one step ahead of it."

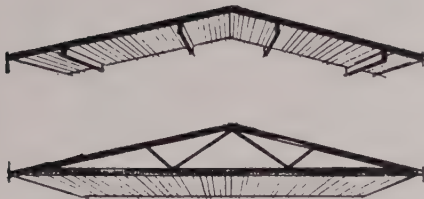
Here is what Martin Gleich
says about new features
inside AHG's 1960 houses



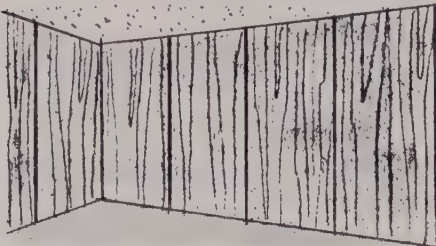
CEILING-HIGH DOORS: "They add visual space as they increase air circulation."



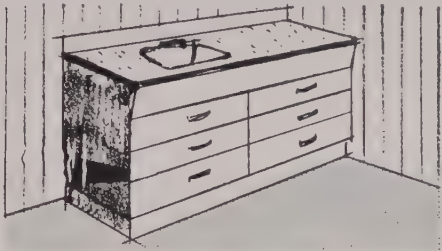
NEW KITCHEN CABINETS: "Aligning cabinet bottoms makes kitchens look trimmer."



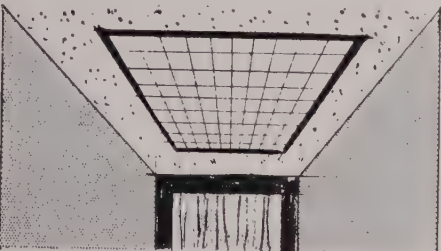
FLAT AND SLOPING CEILINGS: "The contrast will add impact to all the rooms."



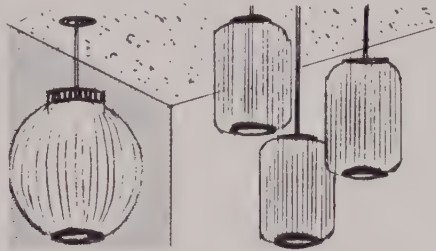
PREFINISHED PANELING: "Smooth, warm, durable surfaces have built-in sales appeal."



DRAWERS IN VANITY: "Nothing impresses people more than plenty of storage space."



LUMINOUS CEILING IN HALL: "They will brighten the hall, make it seem bigger."

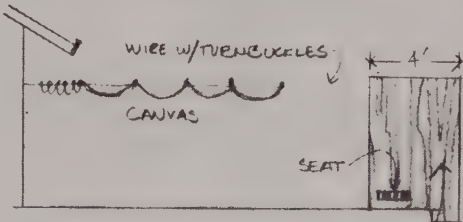
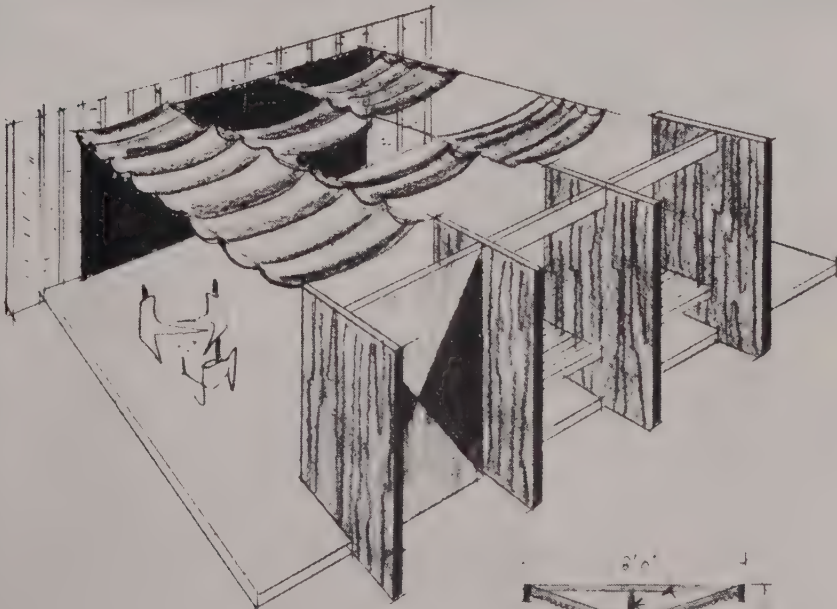


BETTER LIGHTING FIXTURES: "They make a wonderful conversation piece."



BI-FOLD CLOSET DOORS: "They make the space in a closet much more usable."

Here is what Gleich says about a new indoor-outdoor living feature for 1960



PLYWOOD ON STUD FRAME
PLATE BOLTED TO SLAB
(ANY DISTANCE FROM HOUSE)



SUNSHADES FOR TERRACES: "We asked Henry Hester (AHG's architect) to do these designs to dramatize what we've already done to offer

good indoor-outdoor living, and to show people how they can develop their own backyards. We'll show them on all our models." /END

Everywhere today more and more people want

Indoor-outdoor living

"The most important single thing to provide to sell houses these days," says Long Island Architect Hank York.

"One of today's strongest influences on the building and selling of homes," says Phoenix Builder John Long.

"A great sales asset—we distinguish ourselves in the market with it," says St Louis Builder Fred Kemp.

"A major sales feature—so important that we are building our new models around it," says Seattle Builder George Bell.

These experts are enthusiastic about indoor-outdoor living because it is one of the easiest and cheapest ways to offer a better and more saleable house.

Houses with well planned indoor-outdoor living are more saleable houses because, as San Diego Builder Martin Gleich points out in the previous article (see p 89), today almost everyone likes to live and eat and entertain in the out-of-doors.

Houses with well planned indoor-outdoor living are better houses because, as the photo opposite shows, a well planned and well proportioned outdoor area can:

1. Make your rooms seem larger, by "extending" them through the wall.
2. Make your rooms more pleasant, by offering an orderly, well landscaped private view—even on small lots.
3. Add a lot of extra living space to your house, at least in pleasant weather, at a fraction of the cost of inside living space.

But you will get none of the advantages of indoor-outdoor living unless you plan it well. On the next six pages you will find five step-by-step suggestions to help you plan your indoor-outdoor living. They will show you how to choose the best place on your lot for indoor-outdoor living (p 98), how to orient your house to it (p 99), how to make it easy to get from the indoors to the outside (p 100), how to make the outdoor area private (p 101), and how to show your clients or buyers what they can do to make their indoor-outdoor living area work (p 102).

House in California.
Architect: Richard J. Neutra, FAIA
Photo: Julius Shulman

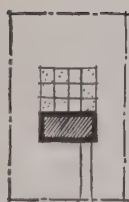


Step 1: Choose the best place on your lot for indoor-outdoor living

If your indoor-outdoor living is to work really well, you must take this first step as part of your earliest planning. Reason: It affects the siting of your house on the lot (see below) and the design of your house (see opposite).

Finding the best spot is easy if your lot has natural advantages like the trees and rocks in the photo at right to provide ready-made shade and privacy and view.

Finding the best spot on a typical lot is a matter of balancing the advantages and disadvantages of four basic possibilities: putting the outdoor living area to the rear, the side, the front, or in a court (see below).



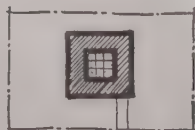
Outdoor living to the rear makes the most sense for the most lots because the house blocks the outdoor living area from the street. This orientation works well on lots of almost any shape, but works especially well on fairly narrow and deep lots.



Outdoor living to the side makes sense, especially on wide, shallow lots, because the outdoor living area is shielded from one neighbor by the house, can be shielded from the near neighbor by privacy screens or planting. Because of the summer sun, east side is better than west, south is better than north.



Outdoor living in front is difficult to handle well, and privacy screens to block the view of passersby are a must. But this arrangement makes sense on a narrow lot if the rear faces west or toward an unsightly view.



Outdoor living enclosed by the house is becoming more popular because it gives almost every room a pleasant view of the patio, and provides maximum privacy. It is ideal for a small lot. Big disadvantage: greater house perimeter.

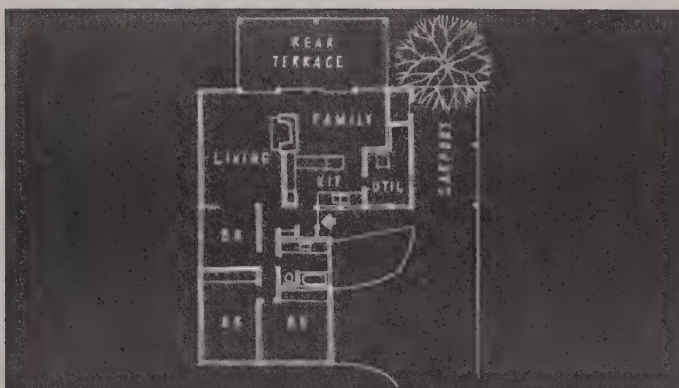
Step 2:

Plan your house so the living area faces the best outdoor area

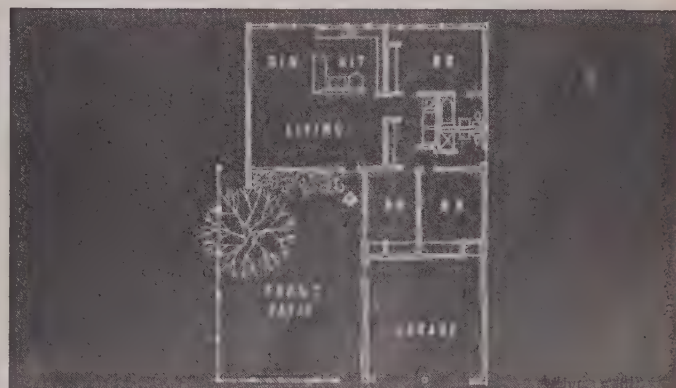
The living room (as in photo at right), family room, or both should face the outdoor living area. They are the rooms where activities normally expand into the outdoors.

And the kitchen should be near the outdoor living area so it is convenient for outdoor dining and so the housewife can supervise her children.

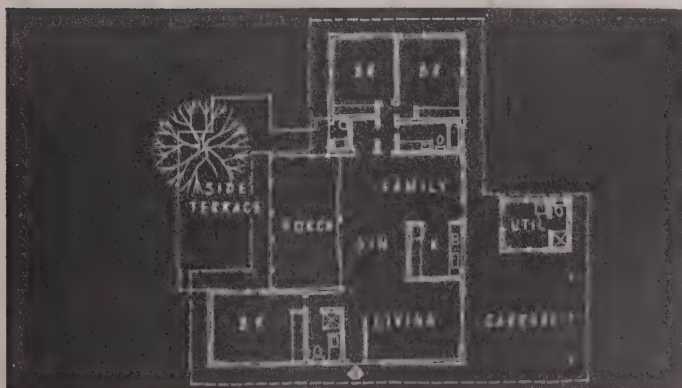
An L-shaped or central-court plan lets you open even more rooms to the outdoor living area (see plans below):



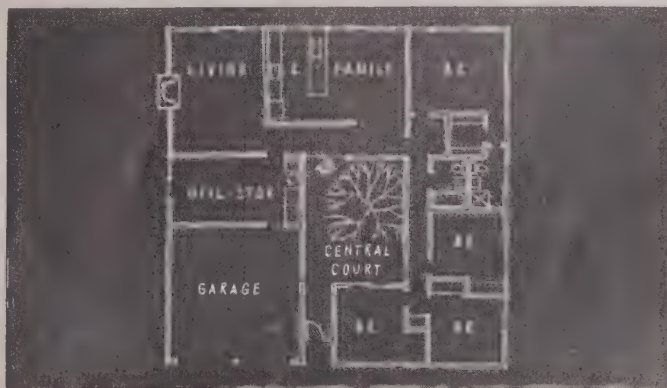
LIVING AREA FACES REAR TERRACE in this plan. Both living room and family room can be opened to terrace through sliding glass.



LIVING AREA FACES FRONT PATIO in this plan. Patio is screened from the street by high fence and garage.



LIVING AREA FACES SIDE TERRACE in this plan. Family room and dining room face outdoor area; living room is secluded "parlor."



LIVING AREA FACES CENTRAL COURT in this plan. Guest bedroom and family room have view into patio.

For steps 3 and 4, turn the page

Step 3: Make it easy to get from the indoors to the outdoor living area

To make it easy, you must: 1) provide big, convenient openings through the wall, and 2) keep indoor and outdoor areas at about the same level. (One step down to a terrace is only a minor obstacle—five steps are a major obstacle.)

People won't use the outdoor living area if it is hard to get to. The photos on this page show how designers of both custom and builder houses have made it easy.



SLIDING GLASS DOORS are the most popular, and often the least expensive, way to open the indoor living area to the outdoors. In cold climates, double glazing can be used. Architect: John Funk.

Julius Shulman



OVERSIZED HINGED DOORS in this custom house open it wide to the terrace. Living room is integrated with terrace by keeping both at same level, bringing exterior flagstone right into the room. Deep overhang makes threshold unnecessary. Architect: Arthur B. Gallion.

Maynard Parker



SMALLER DOORS, set into a fixed glass wall, can be cheapest solution. Glazed doors (left) must be custom-made; solid flush door (right) is stock item. Builder of house at left: Lincoln Lumber Co. Architects of house at right: Cliff May and Chris Choate.

Rondal Partridge



Step 4:

Plan your outdoor living area so it has privacy

The photos on this page show two basic ways to give the outdoor living area privacy: 1) shield it with the wings of the house, or 2) shield it with fences or planting.

Privacy is probably the most important element of indoor-outdoor living—and it is certainly the most neglected. The outdoor living area should have as much privacy as the indoor living area because both are used for the same activities.

Earl Saunders



SET-IN TERRACE is screened on three sides by wings of house, has privacy and shelter. Builder: Cloverdale Corp.

Ernest Braun



ENCLOSED BACKYARD provides maximum usable outdoor space—all completely private even though lot is relatively small. Screens and



ENCLOSED TERRACE gets complete privacy from 5' redwood fence, trees beyond, and planting inside. Privacy was a must here—room in foreground is master bath. Architect: Alfred Browning Parker.

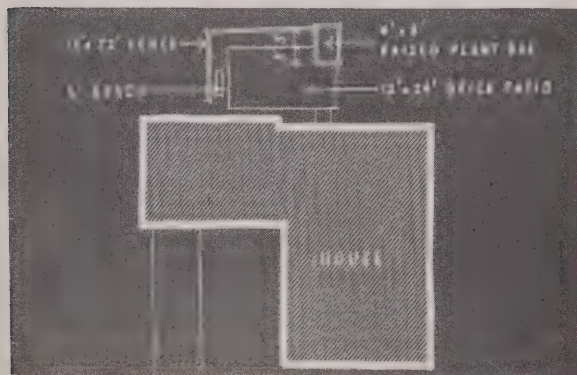
terraces like these, which are "part of the house," can often be included under the mortgage. Builder: Eichler Homes.

For step 5, turn the page

Step 5: Show your clients and buyers how to finish the job

If a custom-house client is to get the most from indoor-outdoor living, the architect should include in his plans finishing touches like those shown in the photo at right.

If a merchant-house buyer is to get the most from indoor-outdoor living, the builder should help him by: 1) doing a really good job of landscaping and fencing and "furnishing" the outdoor area of the model houses, to show buyers how they can develop their own terrace; 2) giving buyers "sample plans" for the outdoor area prepared by the architect or a landscape architect; 3) helping buyers get a reasonable price on landscaping.



PATIO PLAN is given to buyers by St Louis Builder Fred Kemp. 50% take advantage of his suggestions. Improvements are not included in price of the house.



PEBBLE-TEXTURED TERRACE, sunshade, and metal fountain add pleasant finishing touches to the outdoor living area of this custom house. Architect: Kemper Homland.

Arteaga Photo



ST LOUIS MODEL HOUSE has one of six "sample landscaping plans" which Builder Fred Kemp gives buyers. Kemp spends \$300 to \$800 on model-house outdoor living areas.



WASHINGTON, DC MODEL HOUSE is elaborately landscaped. Builder Eddie Carr says cost (\$1,500) has paid off, since rear yards are such a big talking point.

CALIFORNIA MODEL HOUSE displays latticed sunshade, checkerboard terrace of concrete and gravel, vertical redwood fence, simple but effective landscaping. Builder: Cliff May.



SCREEN of low-cost concrete masonry is distinctive and practical—it blocks view from neighbors, lets in breezes. Block is standard pattern.



WINDING PATH of these redwood sections, set in a gravel bed, makes an effective garden border and provides a dry walking surface in any weather. /END



Is the housing industry due for drastic changes?

Yes, says top Planner Burnham Kelly. He spells out the changes—and tells why they will come—in these extracts from his speech at the annual meeting of the Building Research Institute:

Perhaps the most important thing to be said about the housing industry in the 1960's is that it will actually become an industry. The forces that will bring about this change have long been storing up. In specialized aspects of the industry—the trailers, prefabs and the appliance business, for example—it is already possible to see indications of the shape of things to come.

But, one might say, this is old stuff; we have talked for years about the coming revolution, and nothing has happened. The difference is that things *are* happening, so that in the 1960's the lid will finally come off.

Industrialists, technicians, managers, and designers are all at once, all over the country, and often quite independently, beginning to see the housing industry as one of our few remaining industrial frontiers.

With the opening of this frontier, we have what amounts to a new field of economic enterprise

The skills and know-how that have been built up through long experience in the past are in large part irrelevant for the future. Many of the limiting assumptions on which designs and production plans have been based are radically altered. Traditional guideposts are removed.

This fluid situation is a major production opportunity and at the same time a major design challenge. Never has there been a time when it was more obvious that producer and designer will have to work closely together if new means are to bring real progress towards basic aims. It is also perfectly clear, however, that the average producer and designer, though they may see the opportunity ahead, have little sense of the need for cooperation, less experience in working together, and almost no regular means for mutual education.

To develop these points more fully, first, consider the forces that lead us to believe that major change is now inevitable.

There has been an enormous increase in builder size in the homebuilding field

The typical building project size has gained as well. One per cent of the builders build one-third of all houses. The first 10% build two-thirds; and the other 90% build only one-third. Twenty years ago, builders of five houses or more a year were already building two-thirds of the houses; ten years ago this climbed to three-quarters; and last year it was nine-tenths. Operative builders, like Levitt and Centex, and the major dealers for home manufacturers, like National Homes, number their annual output in the thousands of houses. In the city the trend is towards large projects of redevelopment and renewal.

More building enterprises can devote large resources to research

They balance production, distribution and erection activities to take a good deal of the sting out of the old problem of seasonality; and they operate in a large enough territory to smooth out the extreme fluctuation of local housing demand that has plagued the traditional small builder.

Even more important, there are organizations large enough, tough enough, and fore-handed enough to iron out in advance their problems of local building and land use controls, sometimes maneuvering recalcitrant officials into submission and sometimes moving beyond the reach of present local controls. Such organizations offer visions of stability and vastly improved working conditions to labor, plus the possibility of setting up responsible collective bar-



gaining relationships. Integrating their purchasing, distribution, and construction operations, they combat the consequent overhead costs by taking advantage of mechanization and mass production techniques.

Volume production is a direct function of mass sales—in turn a function of mass lot development

Even so large a producer as National Homes has not, to this day, produced a house to stock; no house is started through the production line without a firm order from a reliable purchaser. Full industrial efficiency awaits the day when rationalized marketing and construction systems permit such steps as production to stock, according to standard measures, or in planning components. This day is fast approaching.

Another force for change is the growing importance of equipment and services in the house

Development in this area is easy to understand. The average man may change his basic emotional needs only over a number of generations and adjust to new living habits only over a period of years, but he tends to accept a new unit of domestic equipment as soon as he can see that it does a better job, without an equivalent rise in expense. Such a unit is unlikely to run afoul of local regulations or building practices. It is often the product of a large, aggressive corporation, the reputation of which is good enough to represent a major sales feature.

The fast development of services and equipment has changed the very definition of the house

No longer is it appropriate to consider only a structural shell and finished

Burnham Kelly, prophet of industrialized housing, is a lawyer turned planner

"I was a lousy lawyer," he says, "and I was interested in city planning all along."

Heritage hovers over Kelly's emergence as a brilliant analyst of housing technology. His grandfather was famed Chicago Architect Daniel ("make no little plans . . .") Burnham. Other architects in the family: two uncles, two cousins, his older sister, Margaret Geddes.

Kelly was born in Evanston, Ill., grew up in Providence, graduated from Williams College and Harvard Law School ('36). He joined the Providence law firm of Greenough, Lyman & Cross but quit after a year to get a master's degree in city planning from MIT. In 1941, he joined the committee on fortification design of the National Research

Council, spent the war years (on loan to the Office of Scientific Research & Development) working on Army operations problems.

After the war, he returned to MIT, and since 1950 has been an associate professor of city planning. From 1948 until 1954 he was also director of the Bemis Foundation in housing research. His 1950 book, *The Prefabrication of Houses*, is still considered the definitive work in its field.

At 47, Kelly is an articulate exponent of the value of ivory-tower thinking. "The housing business being what it is (with its bustle and immediacy), we at MIT should make a virtue of the ivory tower without attempting to account for day-to-day developments," he says. He is also quick to deride planners

who want mass housing to be a beautifully crafted thing with fine tolerances. "If you are going to industrialize housing, you are going to have to build quick and dirty."

Kelly, who married Jean McKee Kingery in 1939, is the father of three boys and two girls, aged from 17 to 4. He helped plan the very modern Moon Hill cluster of homes in Lexington, Mass., but he explains: "With two grand pianos, two dogs, two cats, and five children, I couldn't afford to build a house big enough for us, so we found an old mansard-roof Victorian house. It's so big that each child has his own room and there is one wing we haven't used yet. It's a half mile from the center of Lexington, so the kids can walk (the planner's ideal)."

interior components, together with a few elementary facilities for heating, cooking and toilet. Even the legal notion of a physical plant and fixtures attached to the land and passing to the purchaser in a title transfer has become inadequate at a time when dishwashers, clothes washers, garbage grinders, air conditioning units, shades, awnings, and even wall-to-wall carpeting can be accepted as fixtures for mortgage guaranty purposes. Indeed, expenditures for household operation (which covers appliances, services, furniture, maintenance, communications, and miscellaneous expense), which were only one-half as much in 1900 as expenditures for housing (traditionally defined), have steadily climbed until by 1950 the former represented a larger total than the latter (nearly \$15 billion as opposed to \$14 billion).

If to this allocation are added a whole range of expenditures for repair, maintenance, entertainment, and recreational equipment that would have no meaning aside from the house, it becomes clear that the house and the industry producing it have not declined in economic importance, and that claims of collapsing consumer allocations to housing are exaggerated, to say the least.

It also is becoming clear that we can no longer think of houses as made up primarily of traditional materials and finish.

One large site builder has estimated that a breakdown of his total costs would show that as much as 40% of the cost of the typical house goes to advance planning, purchasing, administrative negotiations, and overhead; and that of the remaining 60% only about half is devoted to traditional house costs. Equipment, services, and other modern facilities take the other half.

It is fast becoming a different house and a different industry.

Another force for change has been the increasing difficulty and cost of site operations

Problems include codes, regulations, inspections, labor restrictions, weather problems, complications with subcontractors and local supply channels, and an almost impossible situation when it comes to providing the vital industrial follow-through on maintenance, servicing, and renovation. These are not new problems, but their combined weight and high cost have driven designers and producers alike to move more and more of the construction work away from the site. Localism in traditional construction has been compounded by localism in the regulation of land development and design to such a degree that large size becomes a definite asset to the builder. It gives him increased resources with which to fight through his local negotiations, or to by-pass them by moving to unrestricted land.

The dimensions of the coming urban land problem are now becoming clear to all. Professional planners are very conscious of the need for putting in broader perspective the process under which as much new structure will be added to our cities in the next three decades as in the last three centuries.

There are also significant changes in demand for housing

Overall housing starts are sure to increase in the 1960's; it is reasonable to expect that the figure of 1½ million houses per year will be a commonplace during the coming decade.

More significant, however, is the character of a growing element of housing demand. Census figures show that the most rapidly growing groups in the population will be the very young and the very old adults. (For the first time large numbers of the elderly are able to retire as couples, thanks to medical

progress over the years.) As a result, the prime image of the housing market may shift for the next few years from the standard suburban family of man, wife, 1½ children, and dog to the young or old couple seeking urban convenience and a minimum of personal involvement with domesticity.

Demand for minimum-involvement housing is illustrated by the growth of the mobile homes industry

Outselling manufactured homes (prefabs) every year since World War II when both became significant elements in our housing supply, the mobile home industry in 1957 sold more than 140,000 units, or well over 10% of all dwelling units started during that year and more than 14% of the single family units. These units on the average are larger. They can be as much as 10' wide by 50' long, fully equipped with appliances and services, and highly finished. Almost 90% of them are fixed in place as regular homes and located in trailer parks for which the rental fee may run as high as \$100 a month when there are extensive clubhouse, swimming pool and other facilities.

Undoubtedly, the genuine attachment of many families for mobile homes reflects the fact that these families have few school-age children and do not seek strong community attachments. Such families are not so unusual as we may think. No family always has school children; few of them spend all their lives in one place. The average US family moves every 60 months; if the family is a young couple, it moves every 30 months; if it lives in a mobile home, it moves every 20 months.

The mobile home also gives a hint on how to avoid restrictions

This is the one element of the housing industry that manufactures an

continued

entire dwelling unit as a single product, making use of essentially industrial methods. Significantly, it makes the only kind of dwelling unit that may be purchased as a piece of personal property, free from local land controls, building regulations, labor restrictions, and distribution and construction practices. The government doesn't guaranty mortgages; the financing and second-hand market are arranged very much along the lines of the automobile industry. Other branches of the housing industry might well take note!

Another trend is the growing interest of manufacturers in housing design and construction

The traditional aim of building materials and equipment manufacturers was to sell as much as possible of each individual product, leaving control of the final design to the interplay between individual builder and the local interests, and final cost to the interplay between struggling purchaser and the government's financial regulations.

It is clear now, however, that new materials and systems of construction, particularly those which are economical only in terms of mass production, call for a careful consideration of the entire design process, rather than counting on just fitting in these new materials and systems or using them as substitutes.

The conventional building organizations rarely have the time and funds to undertake such a study. Basic manufacturers are able to undertake research, confident that they will be around long enough to see it pay off. Seeing the problem as a whole, they are able to set in motion new types of subsidiary development-building organizations to get practical trials of new ideas at a scale that permits writing off a significant share of the development expense. They are also able to deal from strength in combating the Lilliputian limitations of local traditionalism in home building. Not the least of their strengths is the power to "buy into" an emerging market situation by investing extensive capital funds in the rapid expansion of production capacity, so that as a new idea proves itself, they build up an important profit position.

Comparable to the manufacturer in potential influence for change is the large land developer

Currently even more important than the manufacturer, the land developer makes the major share of his profit on the increase in value of raw land as it is converted to urban uses. He is able to do so because he operates at a very large scale and uses high planning and managerial skills in disposing of problems of production, design, financing, local restrictions and market development.

Forced to make major construction

decisions several years before the actual building operations can start, the land developer has become an expert in advanced land and building planning, and his activities provide a graduate course in modern building potentials for utility companies and developers of commercial and industrial construction as well as basic housing industry producers and many local interests.

It is not to be assumed that size is the only virtue in the emerging industry picture, but large units do serve the vital function of breaking the trail that smaller units may then follow.

We have an obligation to give real leadership

We have an obligation to make sure that the steps taken in this newly opened territory are intelligent steps that will not later have to be retraced. This confronts us with some formidable problems. Codes and regulations governing the design and construction of buildings and the use of land need to reflect modern conditions, not only of urban living but also of building technique. The change from traditional craft construction operations to an essentially industrial system must bring with it a productive and flexible pattern of labor relations established through negotiations with unions fully organized along craft lines. State-wide labor agreements for the highway program are an encouraging development along these lines.

If long-term investment and an industrial point of view are to be encouraged in the housing industry, the federal government must place a value at least as high as that of the secure home mortgage upon a predictable and stable base of regulatory and fiscal policy. Significant resources must be devoted to the encouragement of innovation, the testing of new materials and methods, and the stimulation of general acceptance of tested improvements.

Recently steps have been taken to cope with these problems

And substantial progress may be expected in the near future. A number of professional and trade associations last fall made a combined appeal for a single national standard for the construction of small houses. In January, the building trade unions set in motion a regular procedure for candid and comprehensive discussion with contractors of mutual problems. The Building Research Institute last year undertook a major program of stimulating and coordinating research. A healthy review of the economic position of the housing industry, among others, has been sparked by the publication of *The Affluent Society* by John Galbraith.

At this crucial moment, when the barriers are about to fall, we come face to face with the unhappy fact that the producers and the designers, who need

to show teamwork now as never before, are only barely able to talk to one another.

The know-how of industrialists is separated from designers' sense of what, when, and why

Industrialists are almost illiterate on fundamental aspirations and needs. Designers are fully as ignorant of the tremendous potentials of modern production methods. Each group assumes that creativity is its own special domain and that the other provides a mere service function. Only too often contacts between the two have been at such levels, under such circumstances as to reinforce mutual antipathies.

As a result, industry has created its own type of designer, who typically is content to concentrate his efforts within the limits set for him by the considerations of production and sales. The architects, whose design aims and training are generally the broadest and whose services should be the most important, have all but refused to learn the essential nature of the great productive mechanism for which they might be providing essential design leadership. This may be the most important, single problem to be solved in the immediate future.

Long-needed improvements in education would surely help. The prospective industrialist is now given almost as little real sense of the pleasure and power of good design as is the prospective architect of the production process.

Another needed advance is the development of the design team able (like medical group practice) to bring a number of special backgrounds not only to the analysis of problems but also to the detailed provisions for its solution.

Finally, we must tap the special US genius for managerial innovation—an area perhaps more important for the next few years than innovation in production or design.

To make effective partners of industrialists and designers, we need new types of organization

One hears little of the label "captive physicist" these days, because physicists have positions of freedom and prestige in industry and are supplied with first-rate facilities; the power of their contribution in basic terms is well understood. We may profoundly hope that the next decade will see the end of the label "captive designer," for very similar reasons.

Industry needs the free and strong designer, and only in cooperation with industry can the designer be free and strong. The public needs the best efforts of both, but has available only indirect means of encouraging progress. The opportunity is great; the responsibility for the physical form of the major part of our future urban environment is even greater. /END



CONTEMPORARY DESIGN is used on six-unit building. Units are 16' wide, have split-foyer entries, and aluminum wall panels, sell for \$11,990.

At \$7 a sq ft, is this today's

BEST BUY IN ROW HOUSING?

Photos: Marc Neuhoof



TRADITIONAL DESIGN is used on another building which has eight 18' units selling for \$12,990.

In Wilmington, Del., these three-story row houses are selling fast—and making a good profit—for Franklin Builders. It is easy to see why:

They offer a lot of space for the money—1,670 sq ft for \$11,990 in one of two basic models (in the building above); 1,870 sq ft for \$12,990 in the other basic model (left).

They are in a well planned development, which has safe streets, playgrounds, and a shopping center (see land plan, p 111) and which is also close to the center of the city.

They have plenty of quality features. Examples: 1) 100-amp, 220-volt electric service; 2) grade-marked lumber; 3) 4" ceiling insulation and 2" wall insulation; 4) disposer, range, range hood with exhaust fan, and kitchen cabinets that exceed MPS requirements; 5) one tree and shrubs in front; 6) a \$200 fence at rear; 7) brand-name products throughout.

And they were built to meet a big need—a need among white families, who formerly could not afford good housing, and among Negro families, who formerly were excluded from good housing.

Why can Franklin build so much house for so little? Mostly because the units are so narrow—16' and 18'—say partners Leon Weiner and Irving Medgebow. Narrow fronts save on framing costs (lighter joists can be used) and on the per-unit cost of raw land and land development. To see how Architect Ted Brandow makes the most of the narrow plans, turn the page.



OPEN STAIRWAY lets living and dining areas borrow space from each other in 16' unit. Column to right of stairs encloses plumbing stack.

Here is how row houses get light open space

The photos and plans on this spread show six ideas used by Architect Brandow in Franklin's new row houses:

1. He wastes little space on walls that would tend to cut the house into dark units. This is possible because joists rest on common walls between units, thus need no bearing partitions across any floor.

2. He puts rooms that must be enclosed (ie, baths) in the center of the house, where they act as dividers without cutting off outside light. This also eliminates the need for halls.

3. He makes the main level one large open area—33'x16' in the smaller units, 33'x18' in the larger.

4. He uses a stairway to divide the living room from the dining room but leaves it open to let the two rooms borrow space from each other.

5. He avoids a plumbing wall on the main level by enclosing the plumbing stack for both baths in a plywood-faced and soundproofed column.

6. He puts an opaque glass panel in an inside bath to admit light from the master bedroom.

Photos: Marc Neuhof



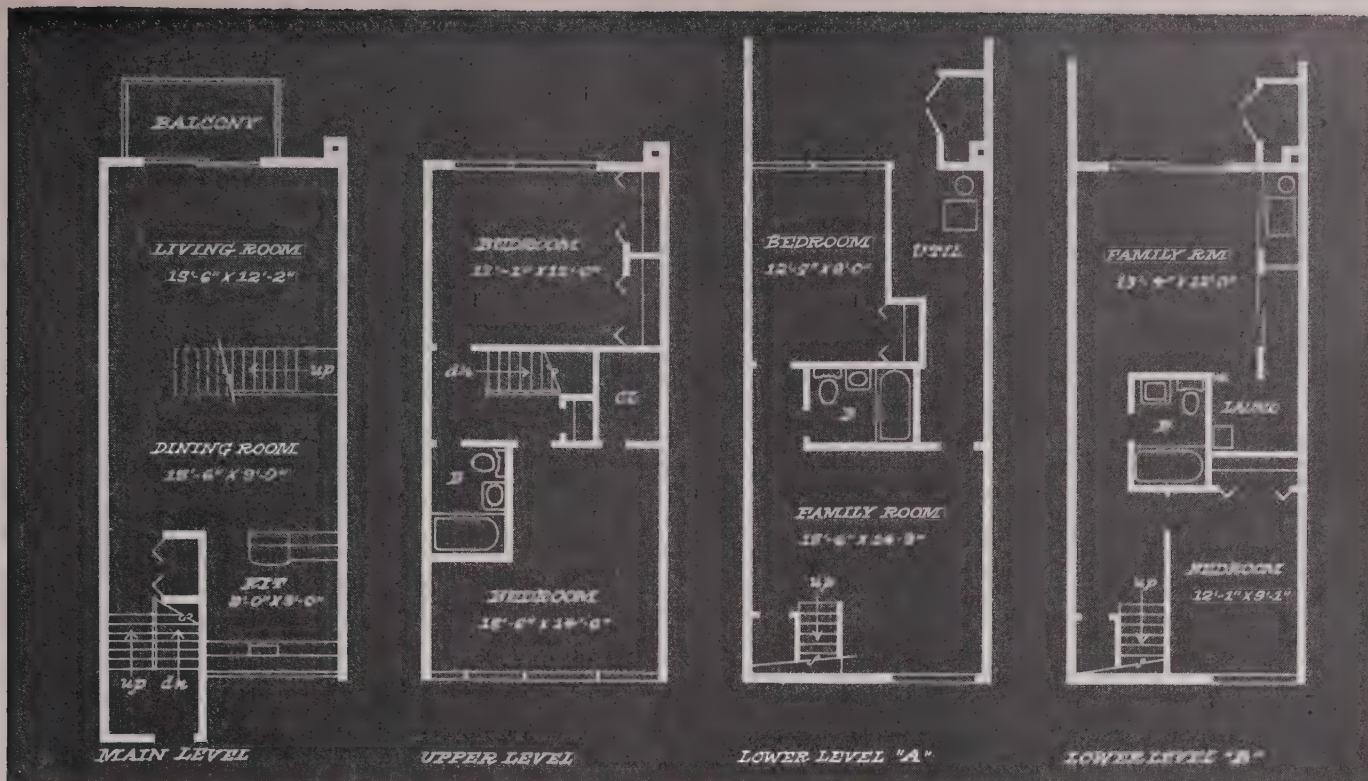
6'-WIDE FOYER leads up to main living area, down to family room and bedroom.



MASTER BEDROOM is L-shaped at front of house, with 15½'-wide sliding window.



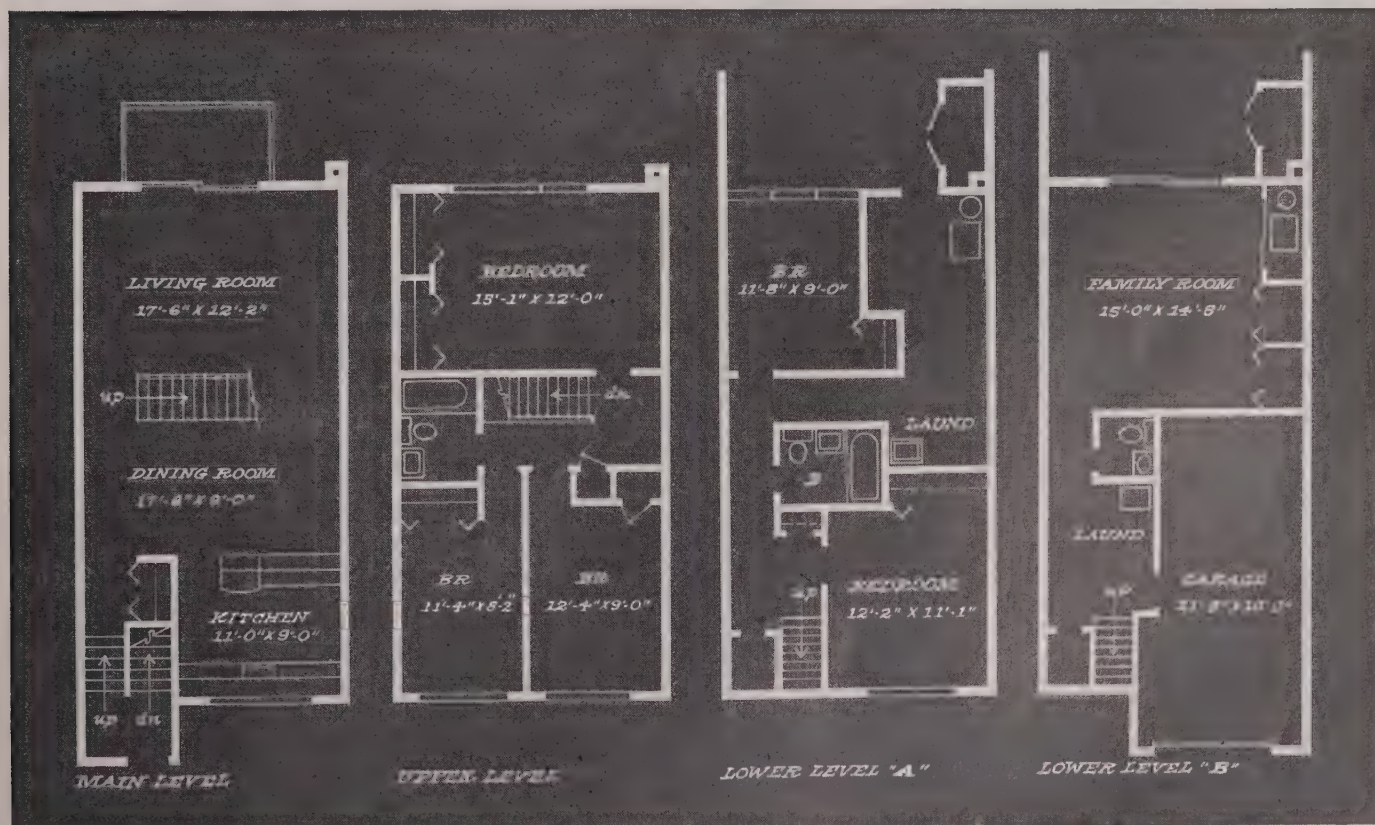
INSIDE BATH has opaque glass panel to borrow light from windows in master bedroom.



PLANS FOR 16' UNITS show how nearly every bit of space is used on three 16'x33' floors (plus 4'x6' front foyer). The main living area is up six steps from the foyer entrance, the lower level six steps down but at ground level in the rear. Buyers may get either sliding glass doors onto

a balcony at the rear of living room or sliding glass windows 15½' wide. Top floor is standard in all models. Two options shown for lower floors provide for a front family room and rear bedroom, or vice versa. Another option offers two lower-floor bedrooms,

with plans that are only 16 ft and 18 ft wide



PLANS FOR 18' UNITS differ from 16' plans chiefly because the top floor has three bedrooms, and the stairs from the main floor to the top floor are reversed. Quite a few options are offered for lower floors. One provides fourth and fifth bedrooms and a large laundry room.

Another has a full garage at \$400 extra (although this plan means buyers get only a half bath downstairs). Other options (not shown) offer family rooms on the lower floor. Both the 18' and 16' houses have outside masonry storage units that partly shield terraces.

continued

Here is why row houses came to Wilmington where nobody wanted them until this year

They came to Wilmington because private industry was willing to meet the housing demand so often left to public housers to fill.

Wilmington's city fathers now see these row houses as one answer to pressing problems of urban renewal.

They came to Wilmington because a successful builder of single-family houses was confident of moving into—and even creating—a row-house market.

Franklin Builders are the biggest homebuilders in the area (New Castle County). This year they expect to build 240 single-family houses priced at \$15,000 to \$35,000, up from 200 houses and a \$4.2 million volume last year. They have always stressed quality, and have won recognition before for the design of their houses (H&H, Feb and Nov '56, Aug '58). They came to Wilmington because the builder was willing

to risk a hot zoning fight to provide decent housing for low-income and minority groups.

Franklin spent \$120,000 for land improvement before the zoning battle was decided.

Until this year Wilmington builders saw no profit in row housing

High land costs, coupled with zoning that required minimum 21' widths, made row housing impractical. This was the finding of an HBA of Delaware committee headed by Franklin's Leon Weiner and set up to explore the low-income housing problem in slum areas.

Says Weiner: "When you have to pay \$8,000 to \$10,000 for raw acreage, you can't build 21' units for less than \$20,000 to \$25,000. Your land costs are far higher and your utility and street costs skyrocket. You have to use 2x12s instead of 2x10s for your joists, and so on. We found costs drop sharply with narrower units. And land costs per unit are much lower than for the single-family lots we build on in the suburbs."

So when Franklin decided to get into the row-house market, the first step after finding a 2½-acre site (at a bargain price of \$7,000 an acre) was to get the land re-zoned for 16' and 18' units. Weiner points out:

"We couldn't have made a go of it if we hadn't won the zoning fight"

Newspapers and county planners were dead set against the change. Opponents testified that 16' units could not possibly allow large enough bedrooms, adequate living space inside, or parking space in front. Some insisted zoning should require wider than 21' widths.

Franklin won its first victory in January when county officials ruled against the planning commission—with the proviso that the units meet adequate living standards. From then on, the builders moved fast despite later efforts to stop them.

Final plans and designs were approved by FHA in March. (Ed Flickinger, FHA land planner in Baltimore, is credited with first suggesting three-story units.) Construction of the new development—called Oakmont—started right away. The first two buildings—a six-unit contemporary and an eight-unit traditional model—opened in June.

Acclaim was immediate and unanimous. Those who had been most skeptical swung around entirely to Franklin's side. Newspapers, civic leaders, and even public housers praised the designs, floor plans, and site layout.

And the buyer reaction was swift—33 sales in the first two weeks

"We are thrilled with the response," Weiner reports. "All the first buyers are Negroes, with incomes from about \$5,000 to \$12,000. Many have equities in old homes they



Close builder-architect teamwork helped make the new row houses a success

Franklin partners Irving Medgebow (left) and Leon Weiner (right) give much of the credit for their row-house project to Architect Theodore Brandow (center), who has also designed single-family houses for them. Here is what they say about him:

"Brandow is in on all our planning. Whenever we start a tract, we begin with discussions of land plans and style changes to meet new market demands. He gives us preliminary sketches, then, develops details after further talks and gives us working drawings and color plans. He always has the important role of preventing compromise of design for the sake of cost alone."

Weiner and Medgebow were the first builders to push contemporary design in a large tract in Wilmington, and usually go as far as they can in this direction.

Brandow gives Weiner and Medgebow credit, too. He has just signed ten contracts to design about 6,000 row houses in the Philadelphia area, and "90% of the work came from people who have heard about the Wilmington work."



21½-ACRE OAKMONT SITE, only a few minutes from downtown Wilmington, will include parks and a shopping center. Parks will be maintained by the county, and Franklin will lease the small stores. An old mansion in the center of the property, now an American Legion post, will probably become a community center later. The high site

overlooks the Delaware River, is shielded from nearby commercial buildings and older houses by trees. It will have about 240 units in 28 buildings on a circular street. Housing units will occupy 13.3 acres, and density will be 13 families per acre. Oakmont is only about a mile from the scene of a recent race riot over housing (H&H, News, May).

own clear. It looks like we will sell over the 100 units we expect to build by the end of the year.

"We expect to get white buyers later. Some have shown an interest. Many more will when Wilmington's new freeway displaces 760 families. Though we are on the Mason-Dixon line, we expect white buyers simply because they can't get the same values anywhere else."

Most buyers chose 18' units with traditional exteriors. (Either unit can be bought with a contemporary or traditional exterior.) The partners are pleased that over one-third—a higher percentage than in their single-family tracts—are choosing contemporary.

Units are offered for only \$500 down including closing costs, on 30-year FHA sec 203 (b) mortgages. Payments come to less than \$85 a month. Most buyers are making deposits much higher than the \$100 Franklin requires. In fact, most will make down payments of \$1,000 to \$3,000.

Industry leaders and civic officials see a strong impact on the local market

Realtor Bernard Rosin sees a drop in used-house prices. Says Rosin, who handles sales for Franklin at the Oakmont row-house site: "Used-house prices are already disturbed in the \$12,000 bracket. Most of our volume is in the re-sale market for both Negroes and whites. Several

families in the process of buying used houses from us want out so they can buy at Oakmont. Our used-house salesmen are referring many prospects to Oakmont. And the two fulltime men we have there—one Negro and one white—are referring non-buyers to our used-house men. We get buyers both ways."

Mortgage Broker Herbert Melick sees "the answer to a great local need." Says Melick (of T.B. O'Toole Inc.): "There is nothing else that can touch Oakmont's units for value here. We arranged financing with Bowery Savings Bank of New York solely on the basis of value. There is no question this kind of effort is the answer to public housing. It shows what a builder with foresight and guts can do. This may not be the answer to harmonious race relations, but it at least gives the two sides a chance to live together—without forcing anyone into an artificial and unrealistic quota system."

City Council President John E. Babianz sees "new hope for slum redevelopment." Says Babianz: "We are clearing a 21½-block area where 875 families will be displaced. Our housing authority has planned to build only rental units for some of those people. Now we think we may rebuild some of the area with units like Franklin's row houses, and give some of the people a chance to move back into the area as owners instead of renters. If necessary, we will even change our old building codes to make this possible."

/END



NO POLES OR OVERHEAD WIRES clutter up Paul Schwendener's development in Western Springs, Ill. Power and phone lines are underground.

It's time to take a new look at

Some big utilities are now beginning to find ways to put wiring underground in subdivisions at little—or possibly no—cost to the builder.

They are trimming once-prohibitive costs by taking advantage of new technology and by developing smoother teamwork with builders. And they are more inclined to foot part of the installation bill instead of passing it all along to the builder. Reason: bigger electrical loads in today's new houses mean more revenue for utilities, thus justify heavier investments in power-distribution systems.

More power and phone companies are working with underground wiring

Item: four years ago only three of the nation's 20 phone companies were putting their lines underground in subdivisions; this year 15 are. The biggest among them: Illinois Bell, New Jersey Bell, New York Telephone (Long Island Div).

Item: four years ago underground phone service was supplied to 2,000 new subdivision houses; this year it will be supplied to 40,000.

Item: two years ago only two major power companies were planting their lines underground in subdivisions;

this year 14 major companies* are installing underground wiring or experimenting with it.

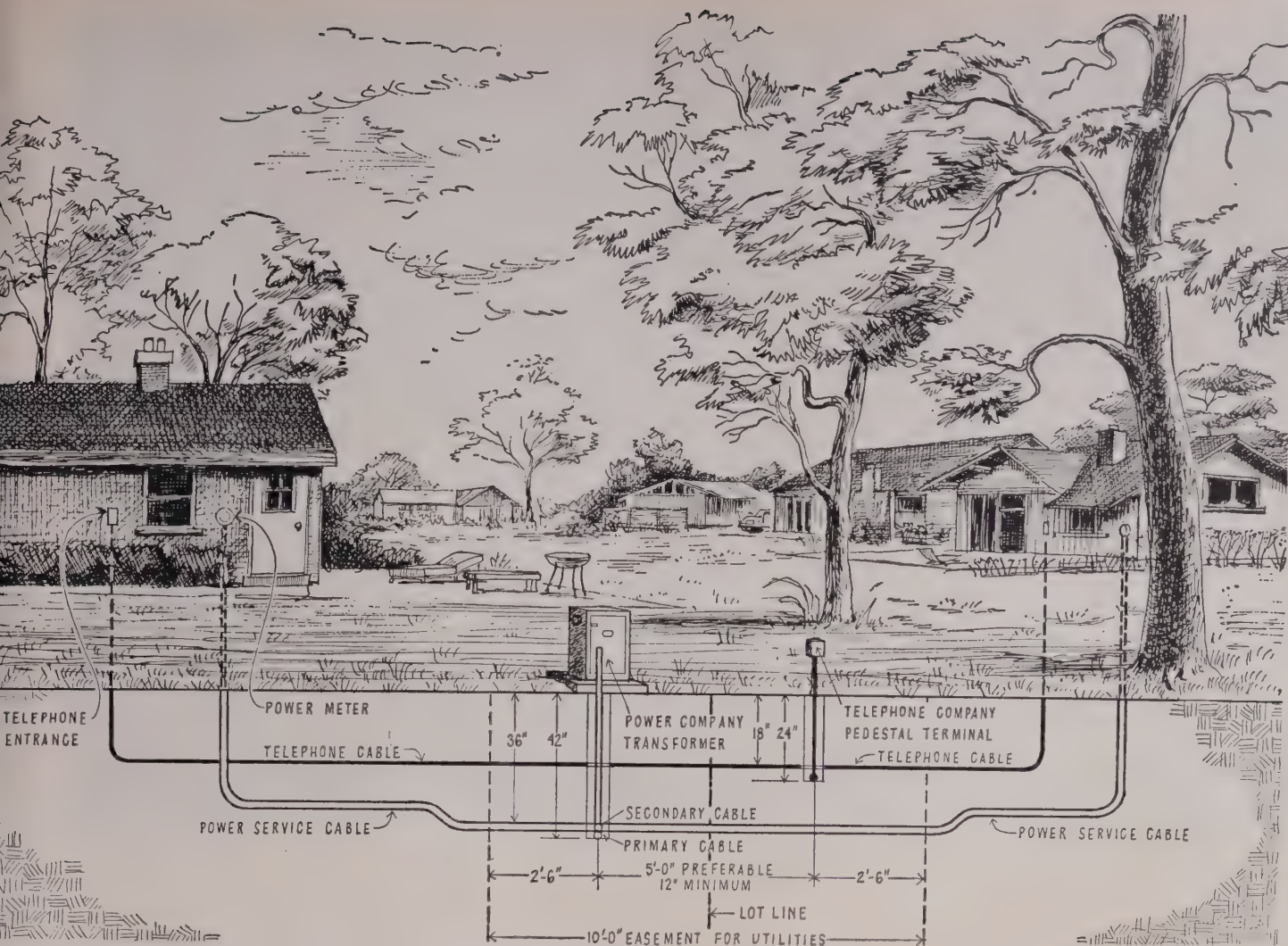
A Chicago utility—Commonwealth Edison—has set the power-company pace in low-cost underground wiring. It worked out techniques to put underground lines in Centex Construction's Elk Grove Village at a cost of \$200 a lot, wound up doing the job for slightly over \$100 (H&H, May '57). This year Com Ed will install underground service for about 3,500 new houses.

More housing-industry people want underground wiring—if the price is right

It's a strong sales tool, according to builders, realtors, and mortgage lenders. Homebuyers are attracted by neighborhoods that are free of poles and overhead wires.

Says Builder Al Riley, who has underground wiring in his 250-house Hasbrook Village, Arlington Heights, Ill.: "Buyers like it. They think it improves the quality

*Commonwealth Edison (Chicago), Central Illinois Light & Power, Detroit Edison, Indiana Michigan Electric, Iowa Electric Light & Power, Union Electric (St. Louis), Cleveland Electric Illuminating, Dayton Power & Light, Arizona Public Service, Pacific Gas & Electric, Southern California Edison, Florida Power & Light, Philadelphia Electric, Western Massachusetts Electric.



underground power and phone lines

of the house and also, it boosts our FHA evaluations."

Says Lender William F. Van Wazer of General Mortgage Investments, Chicago: "Underground wiring adds value to a house. We credit it in our valuations."

Power companies that switch to underground wiring see these points in its favor

1. *It costs less to maintain.* Overhead maintenance is five to ten times more expensive because of storm damage and the need for trimming trees.

2. *It is more adaptable to curvilinear layouts* used in most new subdivisions. Snaking underground lines around curves is as easy as laying them straight. But every time an overhead line changes direction, the pole must be guyed back to anchors in somebody's lawn—raising costs and posing a public relations problem.

3. *It is easier to amortize.* Underground systems usually last longer than overhead, so the first cost can be spread over a longer period.

4. *It helps promote bigger electrical loads.* Many builders want underground wiring if they can get it at a reasonable price. So the more electrical appliances a builder puts in his houses, the less the utility charges him

for installing the underground service in his subdivision.

Example: Com Edison, which charges a builder \$50 a house for underground wiring, refunds \$25 for the first 240-volt appliance, \$25 for the second, also pays up to \$100 if he puts in electric heat (this defrays his cost of trenching and backfilling for underground lines).

And phone companies are forcing power companies to consider another reason for switching from overhead to underground power lines. When a phone company goes underground—as in Levittown, N.J. for example—it no longer pays rent on power poles. The power company's annual loss in rental charges: from \$7 to \$10 a house.

Here is what some big utilities are doing to cut underground installation costs

1. Instead of putting cable in costly ducts, they are burying it directly in the soil (see p 114).

2. Instead of putting transformers in costly underground vaults, they are setting them on above-ground pads, then camouflaging them with shrubs (see p 116).

3. Instead of terminal connections underground, they are using simple, post-type terminals that stick out of the ground and are hidden by shrubs (see p 116).



DIRECT-BURIAL CABLE is simply dropped in trench and covered with soil. This is 7,200-volt primary power cable. Solid copper conductor is

encased in neoprene or other synthetic rubber; wrapped with tape; and grounded by spiral-wound, exposed copper wire.

Here is how new cable is trimming underground-wiring costs

Now cable can be buried directly in the ground. So cable-carrying ducts—a major cost item in underground power and phone systems—are no longer needed.

Ducts were used to protect cables from damage. But in most soils today's cables need no protection. Exceptions: rocky soil (where there may be strong pressure points); filled land (where there may be uneven settling); and under roads.

Ducts were also used so underground service could be expanded—extra cables could be pulled through the ducts. But extra capacity is built into today's cables.

Example: Com Edison's underground lines. Primary cable (7,200 volts) can carry nearly three times its expected load. Secondary cable can handle the load if the four houses it serves have a full line of electric appliances and if three of them add electric heat.

New cable-laying methods are also trimming costs

Some phone companies are plowing cable into the ground in a single continuous operation (see photos, facing page). This is up to five times faster than the former three-step method of digging a trench, laying cable, and backfilling the trench. Result: most companies using plows spend no more to lay wiring in the ground than to run it overhead.

Here is how plowing works: cable in a reel at front of a tractor is fed back into the plow at the rear; plow is locked in a vertical position; as the tractor moves, the plow cuts a deep slot which fills up as the cable is laid.

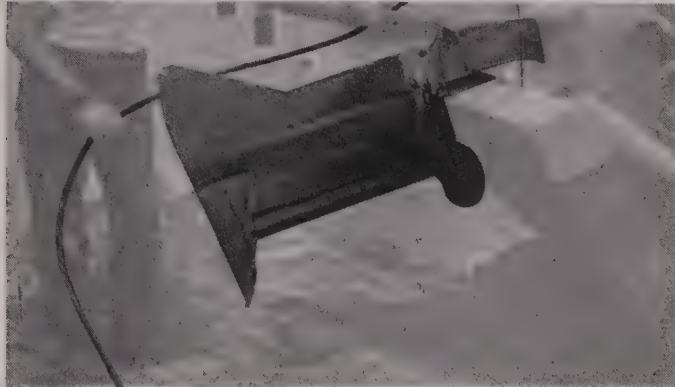
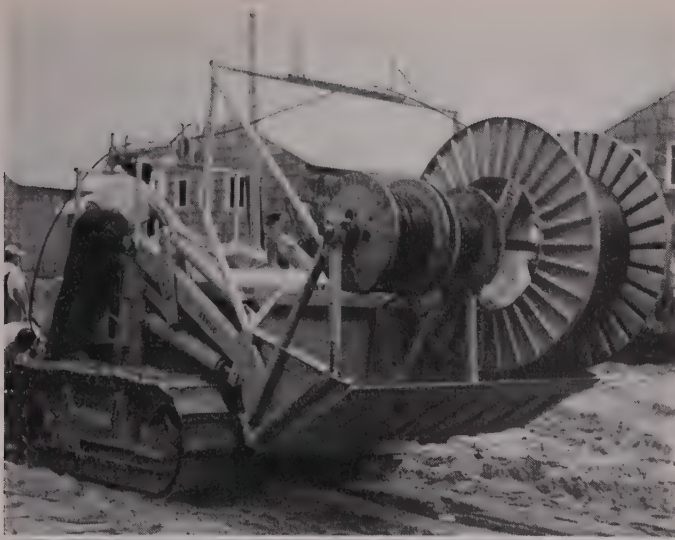
Another phone-company, labor-saver is a trencher (see photo, facing page), developed by New Jersey Bell, which lays cable as it digs. If the narrow trench caves in, it simply buries the cable, which is already in place.

Could power companies also plow in their cable?

Yes. But they say it still costs less to have the builder trench and backfill. Here's why:

1. Builders can do the job cheaply. Builder Al Riley, for instance, subs it out for as little as 15¢ a linear foot. Reason: it is not a special job for the sub—he is on the site for other earthwork.

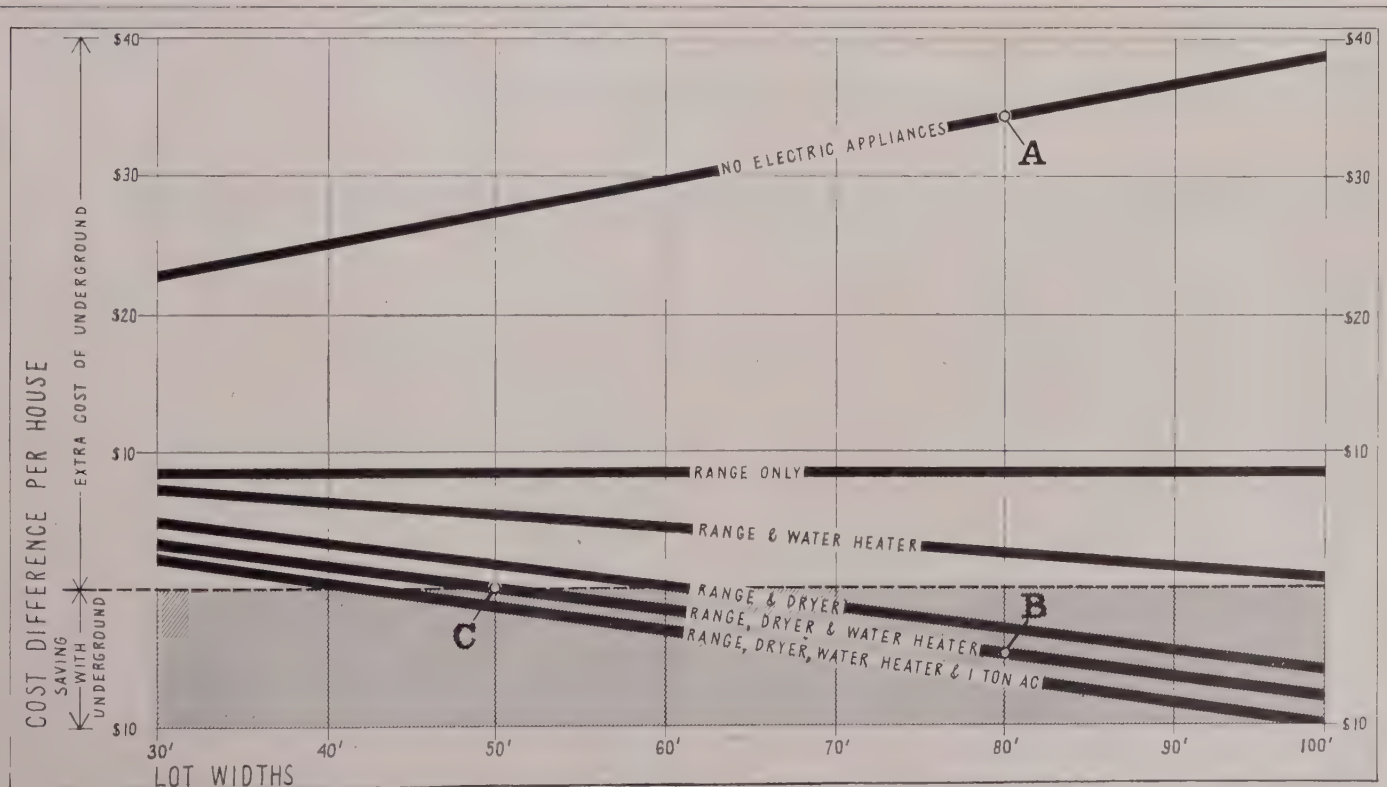
2. Power companies could not keep their plows working as continuously as phone companies. Reason: power-cable laying demands a lot of coordination among the utility, builder, and electrical sub, so interruptions would be frequent. What's more, power-cable must come out of the ground at closely spaced transformer and terminal points. But phone companies can move into tracts at any stage of construction, need not coordinate with other crews or bring cable out of the ground so often.



CABLE-LAYING PLOW cuts slot in soil and plants phone cable in one operation. Cable feeds from reels at front of tractor to plow at rear.



CABLE-LAYING TRENCHER digs 8" trench and lays phone cable in one operation. Metal plate protects cable from trencher's teeth.

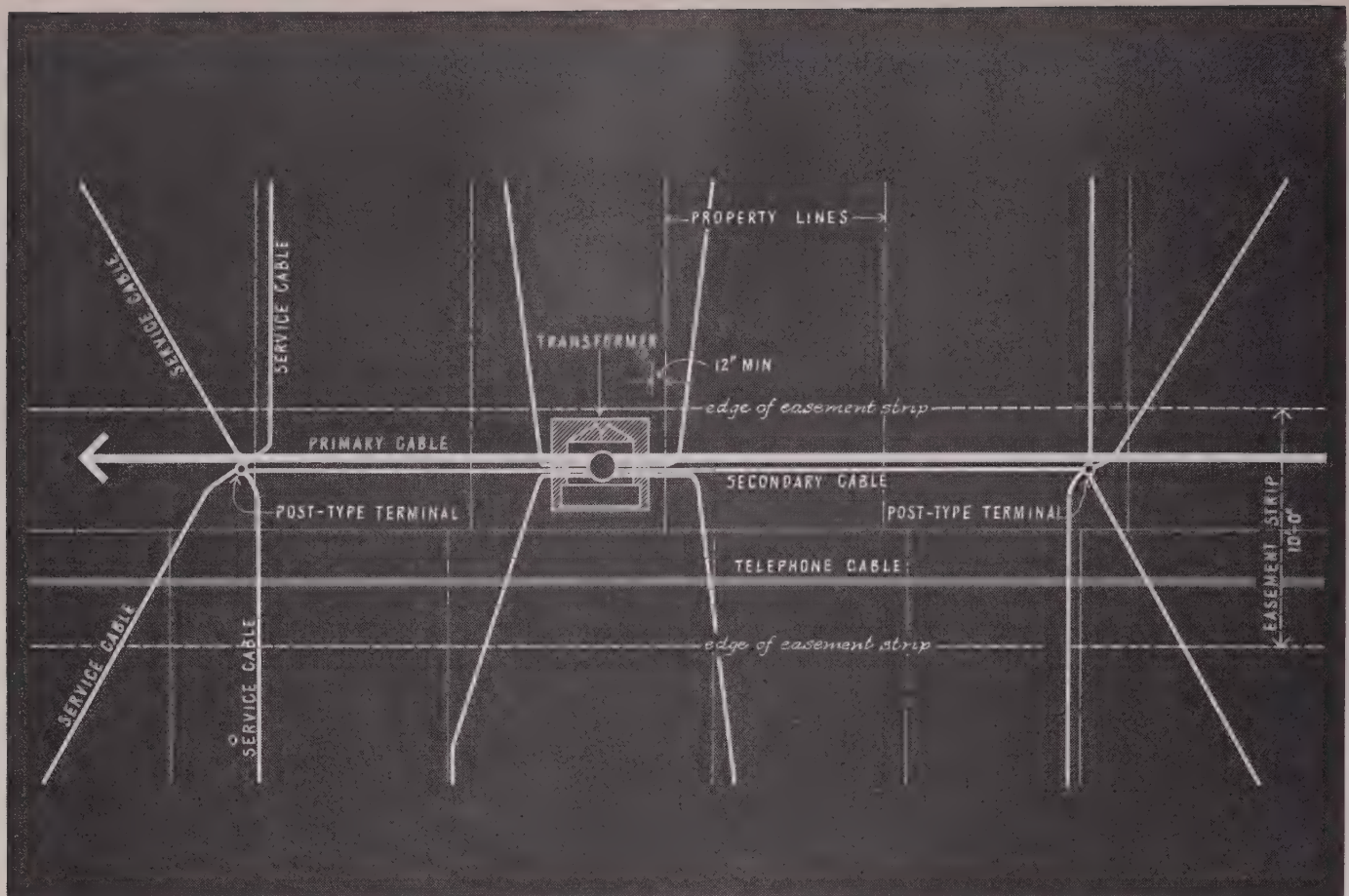


Here is how one utility figures the cost difference between underground and overhead wiring

This chart shows how much more (unshaded area) or less (shaded area) a power company can invest per house throughout a subdivision to install underground instead of overhead wiring. Key factors—which affect items like transformer size, cable size and length, and number of primary lines—are lot width and estimated electrical load per house. For example: if a house on an 80' lot has no electrical appliances, underground wiring can cost \$34 extra (A on chart); if same house on same lot has electric range, dryer, and water heater, underground wiring

can save \$4 (B on chart); if house with range, dryer, and water heater is on 50' lot, underground and overhead costs can be the same (C on chart). Relative costs, compiled by a utility, assume these conditions: 1) curvilinear subdivision layout; 2) relatively flat land; 3) relatively rock-free soil; 4) at least 24 houses built side by side in progression; 5) at least 12 houses per transformer; 6) 100-amp service and at least two 240-volt circuits per house; 7) trenching and backfilling by builder; 8) house hook-ups at time service lines are laid.

continued



POWER-DISTRIBUTION DIAGRAM shows how one transformer now serves 12 houses (previous limit was eight). Primary cable, buried

along rear lot lines, delivers high-voltage power to transformer, which steps it down to house power for distribution by secondary cable.

Here is how new equipment is trimming underground-wiring costs

Utilities—particularly power companies—are saving time and money by using new kinds of transformers to reduce primary power (7,200 volts) to secondary power (120/240 volts) and new kinds of connections to join secondary lines to houses.

New transformers serve 50 % more houses

As recently as 1957, one transformer could handle no more than eight houses. Now a single transformer can serve up to 12 houses (see diagram above).

But, power companies point out, to get 12 houses on a transformer, you must put them back to back, six on one side of the primary line, six on the other. On a subdivision's perimeter—where houses don't back up to each other—six houses per transformer may be the limit.

New transformers are also easier to install

Formerly transformers were sunk part way into the ground and surrounded by a protective casing. Open connections were often near grade, so there was a strong chance of short circuits during spring thaws.

Now the transformer and casing are a single unit, which is set above ground on a precast concrete pad (see photos on facing page) and camouflaged by shrubs. There is no

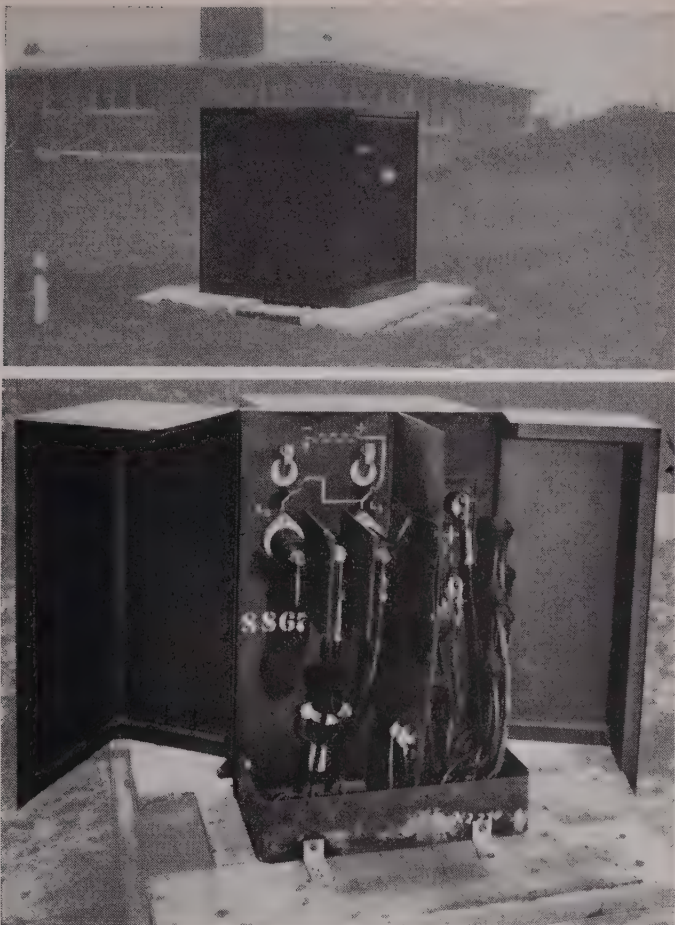
excavating or grading. And the cable is brought up into the transformer, so connections are not exposed.

New hook-ups improve teamwork on the job

And smooth teamwork among the utility, builder, and electrical sub cuts underground-wiring costs by keeping men and equipment busy and preventing unproductive waiting periods.

One time saver is Com Edison's post-type terminal (see facing page) used to connect secondary distribution lines to service lines. It sticks up out of the ground, so the builder can backfill his trench any time after the cable is laid, need not wait for the utility to connect it. Older underground hook-ups made the builder leave his trench open until the utility had completed connections. (Some phone companies also use post-type terminals.)

Another time saver is Com Edison's preassembled service entrance, also shown on the facing page and used for bringing power into the house. It lets the utility and the electrical sub work ahead of construction—they can run cable and hook up before the house is framed. One result: a \$20 saving because the utility doesn't have to come back to hook up when the house is finished. There's a bonus, too: temporary service for power tools while the house is being framed.



ABOVE-GROUND TRANSFORMER is package unit set on concrete pad. In lower photo, primary connections are at left, secondary at right.



FAST CONNECTIONS of secondary and service lines are made with post-type terminal (left) and preassembled service entrance (right) at house.

Here are answers to questions you may ask about underground wiring

Q Is it dangerous—to gardeners, for instance?

A No more so than overhead wiring. Cable lies well below the depth any gardener would dig. And it would take extra-strong pressure on a shovel to pierce the cable's thick rubber insulation. Even if a shovel struck the live core, most of the current would be grounded through the blade. Just to be on the safe side, utilities always show new homeowners the exact location of underground lines.

Q Is water on the site a problem?

A No—unless there is a flood and the water level is above grade. Then there may be a short circuiting at the transformers. The cable itself is waterproof, and there are no open connections below grade.

Q Is frost heave a problem?

A No—because there is no rigid connection between the underground cable and an above-ground enclosure. The cable comes out of the ground in a section of conduit that has a telescoping—or free-moving—fit with the enclosure.

Q Will insects and rodents eat through the cable?

A Some ground borers can penetrate certain types of rubber cable insulation. But a neoprene jacket is almost immune to insect and rodent attack. And in northern areas there are no insects or rodents at cable depth.

Q Does an underground power failure interrupt service longer than a failure on overhead lines?

A No. Power can be brought in from the other side of the transmission net on underground lines just as fast as on overhead lines. Pinpointing the location of a break takes a little longer in an underground system. When a line fails, utility crews 1) find the two transformers between which there is a break, 2) use portable detection equipment to spot the exact location of the break, 3) dig down to the break, 4) splice the line (which takes slightly longer than an overhead splice).

Q Can power and phone lines be put in the same trench?

A Yes—but both utilities would have to have crews at the same place at the same time, and the crews might get in each other's way. The National Electric Code requires at least 12" of packed earth between underground power and phone lines. Reason: to allow repairs on one line without interrupting service on the other.

Q Would it make sense to put underground wiring in a sewer trench?

A No. There would be a timing problem—sewers go in long before electrical work starts. And there would be a depth problem—sewers must be pitched for proper flow; buried cable must stay at the same level so it is easy to find.

Q Would it make sense to put underground wiring in a water-main trench?

A No—because water mains should be on the street side of lots to serve fire hydrants, and power lines should be at the rear of lots to minimize the distance to houses on both sides.

Q Would it make sense to put underground wiring in a gas-line trench?

A Absolutely not—an explosion could be the result. Also, a gas utility would not be likely to encourage the use of electricity by making it easy for builders to get underground electrical power.

Q Does underground wiring affect homeowners' insurance rates?

A No. In fact, there is less risk with underground wiring because it is not exposed to storms.

Today, almost every builder is facing stiffening competition. But few face stiffer competition than builders in Phoenix—the most competitive market in the US. So chances are you can learn from a top Phoenix builder's ideas on . . .

HOW TO MEET COMPETITION

John Hall (shown opposite) builds in two developments in Phoenix. And within blocks of both, dozens of aggressive competitors are reaching for the same buyers.

Hall has grown swiftly and steadily* in the middle of this competition (which one New York mortgage banker

recently described as “a real hornet’s nest”).

What does Hall do to compete? He follows three basic rules (see below and the opposite page) and he also uses blitzkrieg tactics that keep his competitors guessing (as you will see on pp 122-124).

Markow Photography



1953 MODEL Cost only \$250 less than Hall's 1959 houses, was slightly smaller, but had slightly larger lot (70'x110', vs today's 70'x97').

Hall's first basic rule: “Keep pushing down prices and costs”

In 1953—when competition was just beginning to get tough—John Hall built the house shown above. It has 1,400 sq ft, and it sold for \$11,000—not a low price for low-cost Phoenix, but a price that represented even then a real effort to offer a lot of house for the money.

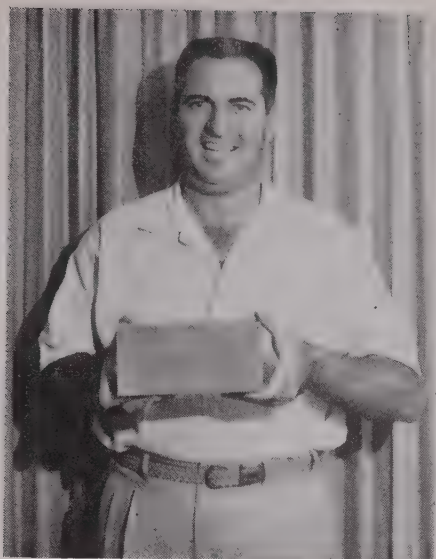
Today, John Hall sells the same size house (1,416 sq ft) with equal or better specifications, for very nearly the same price (\$11,250). And he does this despite the fact that since 1953, labor costs in Phoenix have gone up one-third, mortgage money costs three points more, construction financing has become more expensive, brick (his chief exterior material) costs 50% more, and merchandising (a

sizable expense in Phoenix where all-out promotions are standard practice) costs four times as much.

Hall has been able to hold his prices at the 1953 level by holding his costs at the 1953 level. “And the only way we have been able to meet this problem of rising labor and material costs,” says Hall, “is to depend on mass production efficiency. That means volume buying of materials and assembly-line methods of construction.” Hall estimates his \$11,250 house would cost well over \$13,000 to build if it were built by conventional methods outside his two tracts.

Another factor in his low price: As Hall grew bigger and competition grew stiffer, he was willing to cut his already low profit per house.

*He built his first house in 1951. By 1955 he was building 160 houses a year. This year he will build 1,500 houses.



JOHN HALL, shown holding oversize red brick that has become his trademark.

Hall's second basic rule: "Give yourself a talking point"

Hall is holding his biggest competitive talking point in the photo at left.

Since most buyers in Phoenix are from eastern and midwestern states, Hall builds all his houses of the one material those buyers have always associated with quality—brick. He is the only large builder in town who does. Others use insulating concrete block (the largest block plant in the world is in Phoenix).

Hall builds his brick houses using a cavity-wall technique he brought with him from his native Missouri. He builds an all-rolok wall, 8" thick, with an English (cross) bond face, and a 4" air space inside. The inside face is plastered.

"I believe in brick," says Hall. "Every time we've gone to concrete block—and we've built 500 houses with it—I've been sorry about it."

HALL	COMPETITOR "A"	COMPETITOR "B"	COMPETITOR "C"
	Cost difference	Cost difference	Cost difference
LOCATION - LAND	\$4,000/acre	same	\$3,500/acre
ROOFING	shakes and shingles	comp. asphalt	comp. shingles
EXTERIOR CONSTRUCTION	red brick	conc. block	conc. block
EXPOSED MASONRY	no	no	no
CARPORT OR GARAGE	carport	carport	carport
FLOOR SPACE IN SQ. FT.	1416	1212	1392
DESIGN	good	none	good
DECORATIVE CABLES	yes	no	yes
BAY WINDOWS	yes	no	no
GENUINE DIAMOND WINDOWS	yes	no	tape
PATIO SIZE	230 sq ft	no	no
COVERED	no	no	none
CLOSING COSTS	no	yes	no
ASPHALT TILE FLOORS THROUGHOUT	no	no	included
VINYL TILE IN KITCHEN	yes	no	no
BUILT-IN RANGE & OVEN (incl.cabinets)	no	yes	yes
CABINETS (mahogany or other)	mahogany	mahogany	pine-mahogany
SIZE	good	good	good
CABINET TOP	covered lam. plas.	tile	lam. plas.
VENT HOOD	yes	yes	no
SERVING BAR	yes	no	no
COPPER PLUMBING	no	no	yes
SINKS	yes	no	yes
LINEN CLOSET (material)	pine	pine - mahogany	pine
" (number)	two	one	one
VANITIES (material)	pine	tile - mahogany	one
" (number)	two	one	one
TILE OVER TUB	yes	1 ft	yes
SHOWER OVER TUB	yes	no	yes
GLASS SHOWER DOOR	no	no	no
WARDROBE SLIDING DOORS	ceiling to floor	door high mahog.	ceiling to floor
BEDROOM SIZES	o.k.	real small	o.k.
" NUMBERS	three	three	three
FAMILY ROOM SIZE	o.k.	none (large kitchen)	small
LIVING ROOM SIZE	o.k.	small	fair
SLIDING GLASS DOOR	yes	no	no
CURVED OR STRAIGHT DRIVEWAY	straight	straight	straight
MAHOGANY TRIM THROUGHOUT	no	no	yes
ACOUSTICAL CEILINGS	no	no	yes
PRICE DIFFERENCE			
TOTAL COST DIFFERENCE)			
HALLCRAFT PLUS VALUE)			

COMPARISON TABLE shows how Hall guides himself by comparing each feature with competitors. Hall made the cost estimates for each item.

Hall's third basic rule: "Always know where you stand"

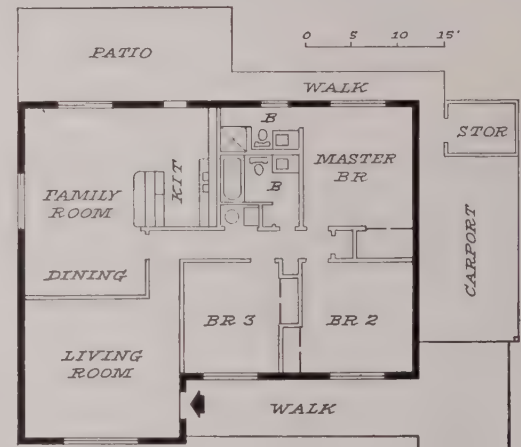
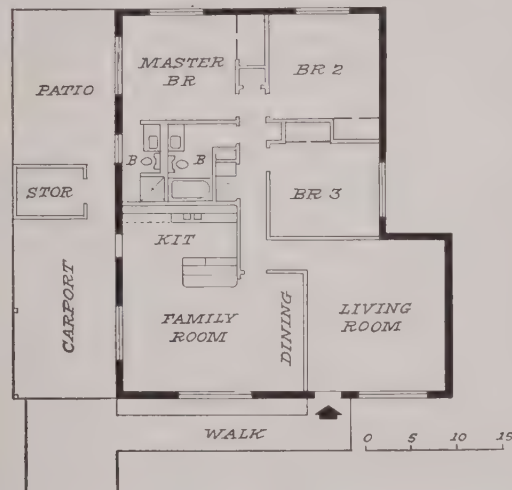
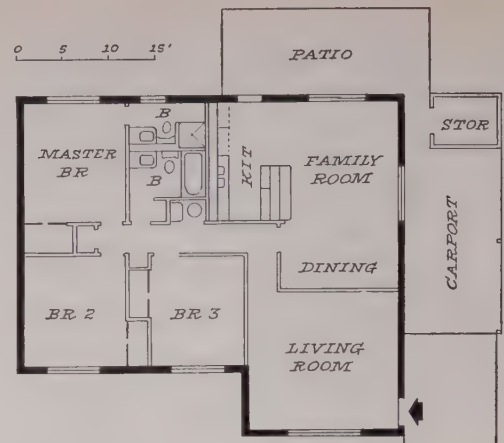
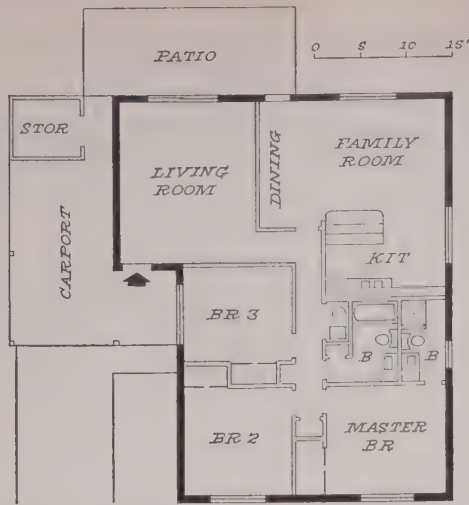
Hall keeps complete tabs on where he—and his competitors—stand by using comparison tables like the one shown above.

These tables are developed by Hall primarily for his own guidance. They compare his houses with his competitors' houses, feature by feature, and—according to his own estimates—dollar by dollar. By keeping these com-

parison tables up to date, Hall is able to spot changes in comparative values as soon as they develop, and take effective action immediately.

(HOUSE & HOME is publishing this chart to show the length Hall goes to keep track of his competition. HOUSE & HOME does not necessarily endorse the accuracy of either the facts or the conclusions shown in the chart.)

Within the framework of these basic rules, John Hall makes frequent—and sometimes drastic—moves to stay with, or move ahead of, his competitors. On the next three pages you will see the three major competitive moves he has made this last year.



SINGLE PLAN, flopped four ways, was used by Hall for all houses for nine months. Only exterior door and window locations changed.

Competitive move No. 1, Sept '58

To squeeze costs, Hall risked all on a single model



BUILDING NEARLY IDENTICAL HOUSES let Hall tighten his production methods, trim costs by using same preassembled components (like partitions and plumbing tree shown here) for every house.

From Sept '58 until June this year—at a time when most builders were expanding their line to broaden their market—Hall staked his sales on building only one basic house, selling at one price: \$10,950.

His single plan was available faced four ways (see above). To offset monotony, Hall offered 15 different elevations, each located in advance to create the maximum sense of variety on a streetscape.

Hall took this bold risk for two reasons: 1) to simplify his operations from bookkeeping through final inspection, and 2) to permit him to perfect his assembly-line production methods.

Since all of his houses were basically alike, Hall was able to use the same plumbing components, the same partitions, the same ductwork—installed the same way—in every house. This cut the costs of the components and the labor. Hall has most components made in jigs in his shop, delivered to the site by truck (see photo left). This system has cut his building time sharply and cut his costs to less than \$8 a sq ft—a low figure even in low-cost Phoenix.



STORYBOOK EXTERIORS, like the four shown here, are in great demand in Phoenix and one reason Hall had to raise his selling price \$300.

Competitive move No. 2, Jan '59

To meet local demand, Hall went all-out for storybook

The potpourri of decorated roofs and windows shown above was Hall's answer to the strong, inexplicable demand for storybook design which has developed in Phoenix (see H&H, Apr, p 192).

Biggest change from previous models is the roof. Hall uses seven different roofs, including hips, gables, broken hips, and combinations of each. This variety of shapes makes the use of trusses all but impossible, although Hall still pre-cuts his roof framing.

Though it is probably the main reason he had to raise his price \$300 (to \$11,250), the switch to storybook exteriors did not rob Hall of his basic economies:

Hall fitted his storybook designs to the same basic plan (see opposite, top) that he introduced four months earlier. And thus he retained the economies of preassembled partitions, plumbing, ductwork, and the economies of standardized installation.

And Hall "mechanized" the building of storybook gim-cracks like the bay window (see photos top left and bottom right, above). It is made in the shop, delivered as one piece, costs Hall only \$50.



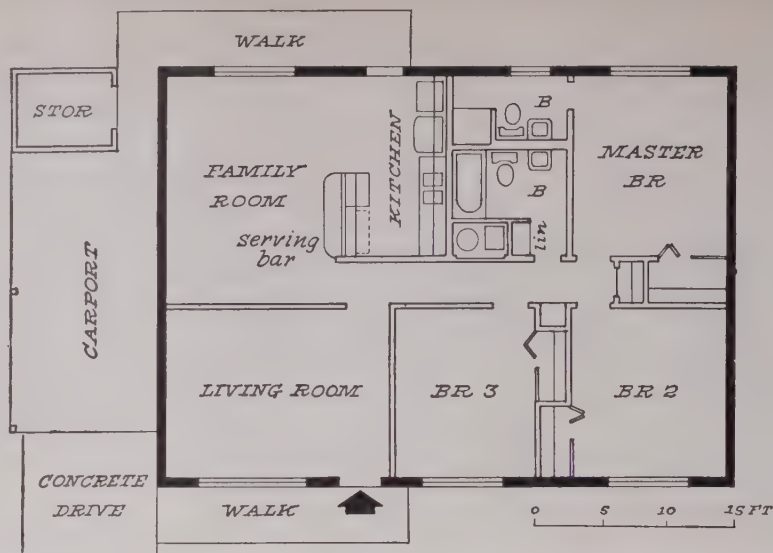
COMPLICATED STORYBOOK ROOFS at left contrast sharply with those on his older models at right. But people flocked out to buy them; note crowds in display area at lower left.

To see Hall's competitive move No. 3, turn the page

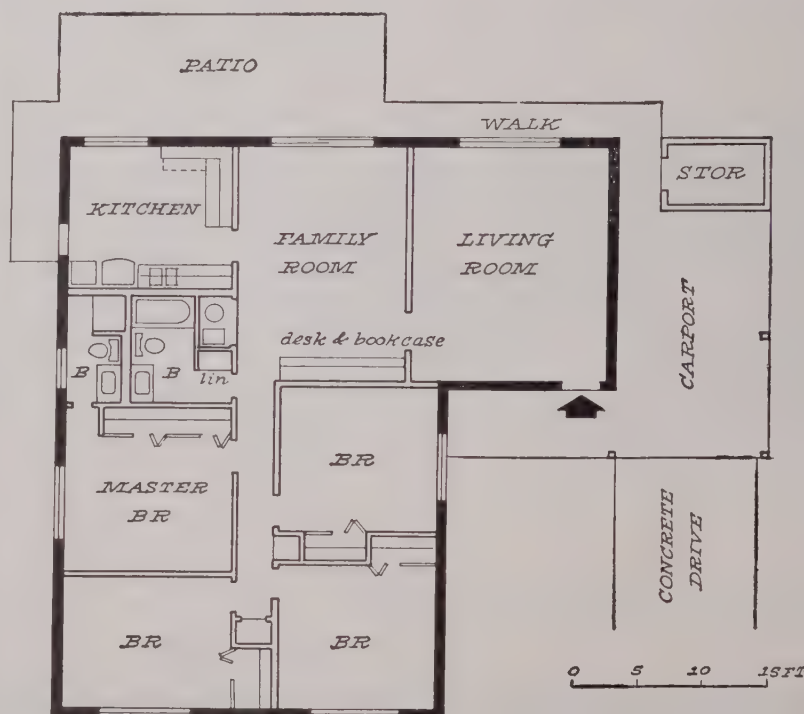
How to meet competition continued



CHEAPER model (\$9,950) is identical to original plan except "L" wing has been lopped off. There are 1290 sq ft of living area, at \$7.75 a sq ft.



MORE EXPENSIVE model (\$12,500) has larger rooms, fourth bedroom, built-in desk in family room. There are 1676 sq ft of living area, at \$7.45 a sq ft.



Competitive move No. 3, June '59

To broaden his market, Hall added two new models

And the opening of these additions to his line attracted so much attention that—in 12 days in June—Hall sold 230 houses (both new and older models).

The smaller model, at \$9,950, is designed to appeal to first-time buyers. The larger one, with four bedrooms, was designed to appeal to second-time buyers and tech-

nicians being moved into Phoenix by the city's fast-growing electronics and research firms.

Both new houses take advantage of Hall's assembly-line economies, because both are built to his basic plan (p 122), and are built around the same plumbing and heating components and almost the same interior partitions.

Hall's next competitive move is still under wraps. But everyone in housing in Phoenix suspects that it will come soon. Because, in "the most competitive market in the US," no one keeps a closer eye on competition than John Hall. /END

How to design the luxury of space into your houses

One of the most wanted—and still one of the rare—features in today's new houses is space.

It is easy to design a house that has plenty of living space if you have an unlimited budget to work with.

But even on a small budget you can get a lot of space for the money—if you follow certain basic design ideas.

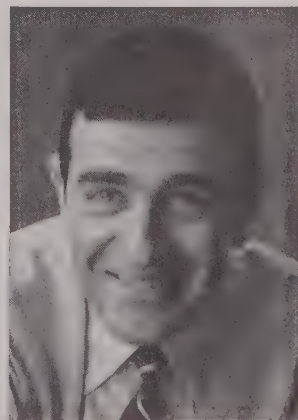
These design ideas were used with great effectiveness in the two custom houses shown on the next eight pages. The two houses differ greatly in size and cost, but—significantly—both architects used many of the same design ideas to get all the space possible.

The first house is small—but it is very big for the small budget Architect George Andrews (below left) had to work with. He got so much space for the money by using an economical plan and simple materials. For details, see Case No. 1, next page.

The second house is much bigger. And Architect Felix Warburg (below right) had a much bigger budget to work with. But—like Andrews—he kept his design and materials simple to wring the most space from his budget. The sq ft costs of this house are somewhat higher than the smaller house, partly because it was built in a higher-cost area, but chiefly because Warburg chose to put part of his budget into special features that raised his costs above the minimum. For details, see Case No. 2, *p 130*.



Architect George Andrews



Architect Felix Warburg



HOUSE OPENS TO GARDEN across entire rear elevation. Low-pitched roof is right for small house; high pitch would dwarf it.

Case No. 1

This trim custom house gets a lot of space

Photos: Tom Burns Jr



PATIO has plastic roof. Fence shields patio from street; main entrance to house is at left. Slit window in kitchen is for easy communication.

Here are the design ideas Architect George Andrews used to make this small house as big as possible:

The plan is economical. The house is a simple rectangle, so cost-kiting jogs are avoided. Room shapes are simple, so rooms are easy to furnish and live in. And circulation is well planned, so no square footage is wasted in extra halls.

The walls double as storage units. The chief partition in this house—between the bedrooms and the living-dining-kitchen area—is entirely a storage wall. Other storage is concentrated in or hung from the walls in every room.

Kinds of materials are held to a minimum. Emphasis is on wood—for interior and exterior finishes as well as framing. So the house is uncluttered, well finished and less costly.

The walls stop short of the ceiling. The space between the storage walls and ceiling is glass-filled, and the living area has a glass gable end. Though some argue that the glass might let extra noise and light into the bedrooms, it makes the living room seem more open, and thus seem bigger.

The house looks bigger outside than it is. The patio ties house and carport together, so the over-all length becomes an impressive 61', even though the house is only 33' long.

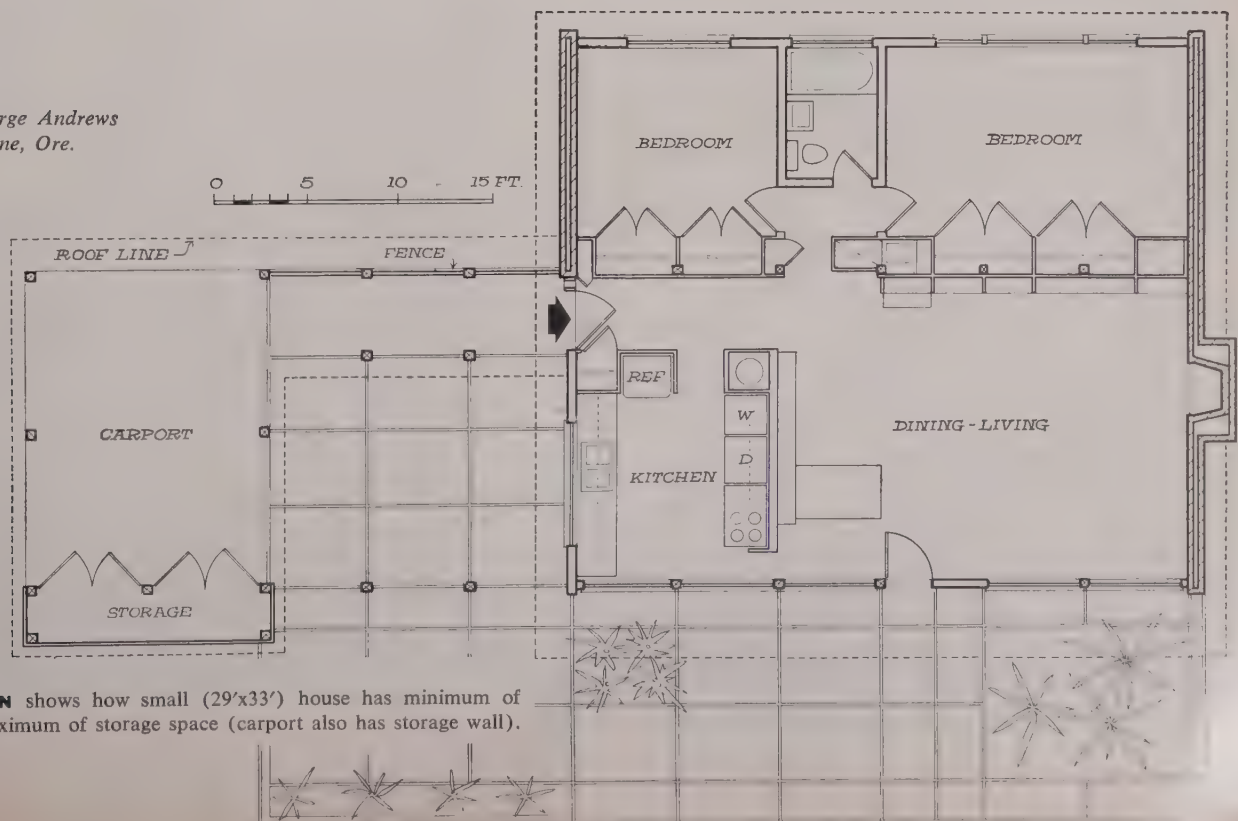
At 1959 prices, in Oregon, this house would cost about \$12-13 a sq ft.



LIVING AREA has one whole wall of storage for books, hi-fi, and cabinets.

into a small area at low cost

ARCHITECT: *George Andrews*
LOCATION: *Eugene, Ore.*

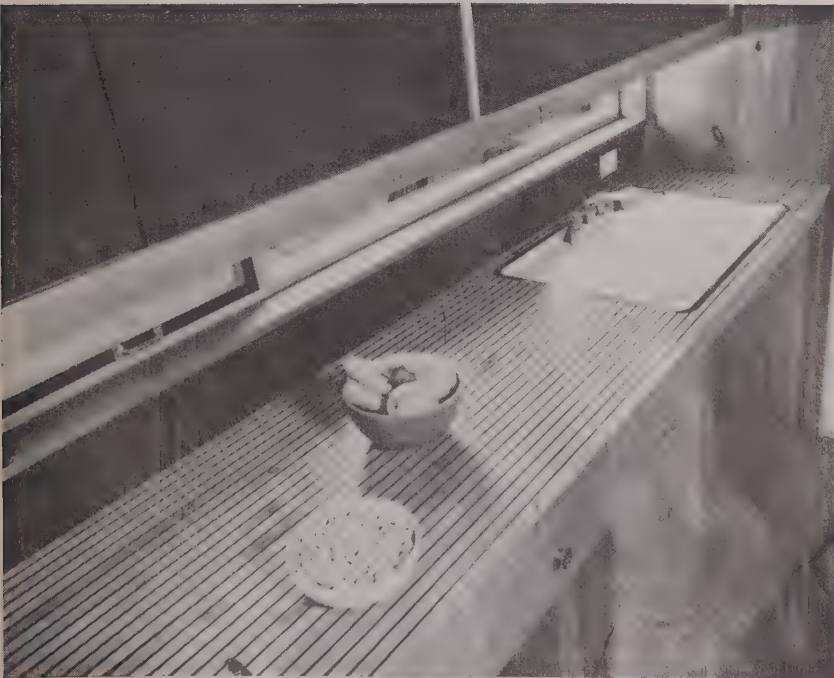


COMPACT PLAN shows how small (29'x33') house has minimum of waste space, maximum of storage space (carport also has storage wall).



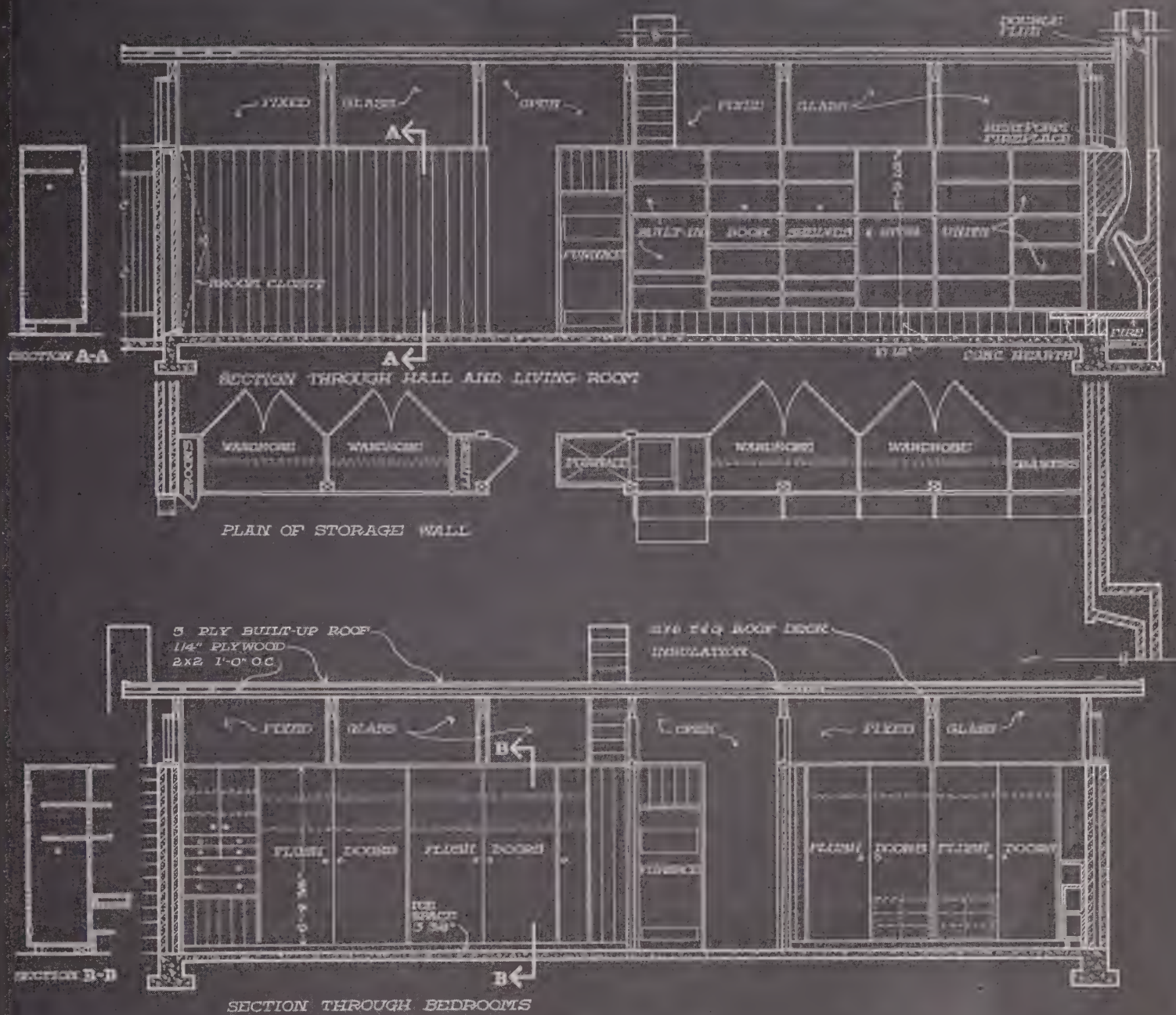
DINING AREA has wall-hung cabinet convenient to table for dishes and glassware. Cedar-faced partition is 6'-8" high, screens off kitchen.

Here is a closeup of the storage walls
and cabinets in this trim custom house



BATHROOM CABINET is simple wood frame routed to take sliding doors; one door is mirrored, one is Masonite. Unit was made on the job.

KITCHEN COUNTERTOP is laminated maple and tempered Masonite, cost \$2.50 a sq ft. Sliding doors on wall cabinets are also Masonite.



BEDROOM STORAGE WALL, left, is 6'-4" high, almost 14' long; combines drawers, shelves, hanging space. Flush doors open entire unit.



Storage wall is also used on living-area side. Shelves are wall-hung. Storage wall cost about \$15 a lineal foot.

To see case No. 2, turn the page



96' HOUSE has cost-kiting jogs in wall but they break the otherwise great length, help in zoning, are united by unbroken roof plane.

Case No. 2

This big custom house has lots of space

Photos: Ernest Braun



CARPORT AND GUEST HOUSE mark main entrance and hide from street view the adult garden court and the children's playyard.

In designing this house for his big and active family, Architect Felix Warburg wanted most "the luxury of space." He got this luxury by holding down costs wherever possible. Here are the main cost-controlling design ideas he used:

Plain materials are used throughout. There are only two wall finishes, gypsum board or burlap over plywood; two floor finishes, polished concrete or vinyl tile; one ceiling material, unfinished Douglas fir 2x4s nailed together.

Construction details are as simple as possible. Framing is simple and trim, and the thickened-edge slab was poured in its trench without form work (see details next page).

The roof was inexpensive. It was "half as costly as a plank and beam system used for exposed ceilings." Five carpenters and a laborer laminated 4,000 sq ft of 2x4s in three days.

The plan wastes no space. In spite of the size of the house and the irregular perimeter, very little space is wasted in halls, and children's and adults' areas are well-zoned.

By such careful cost-watching, Warburg also got such quality features as three fireplaces, a two-zone radiant heating system, built-in lighting throughout, and a huge deck for outdoor living under his budget.

At 1959 prices, in the San Francisco area, this house would cost about \$15 a sq ft, says Warburg.



because sq ft costs were held down

[illegible]

PLAN is zoned so children's play can be controlled from kitchen and master bedroom, but separated from adults' living areas.

continued

Simple materials and construction

show indoors

as well as outdoors



WATERFRONT DECK and sheltered garden are separated only by open living room.



LIVING ROOM, like all other rooms in house, has exposed 2x4 ceiling. Fireplace is precast concrete, treated with black wax.



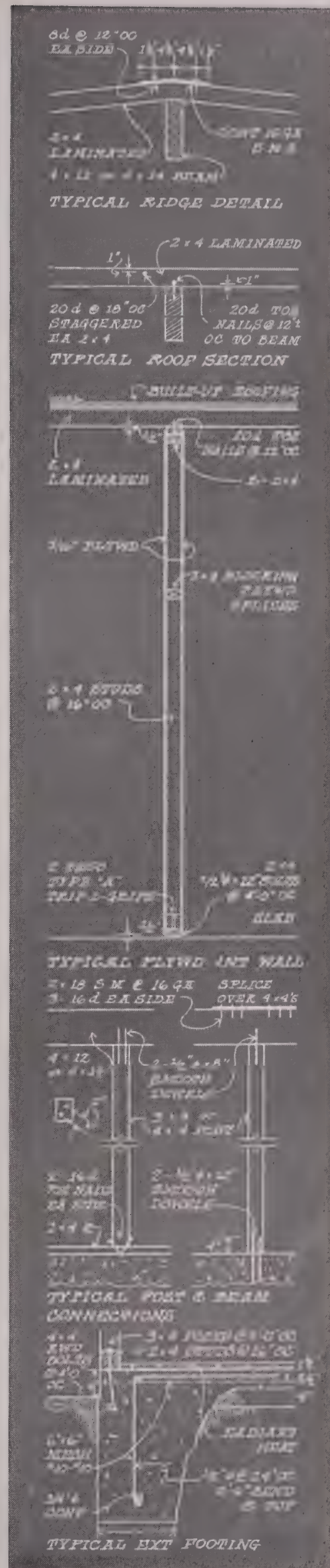
PLAYROOM divides children's rooms from rest of house; has counter to kitchen for informal meals, fireplace, access to deck and playyard.



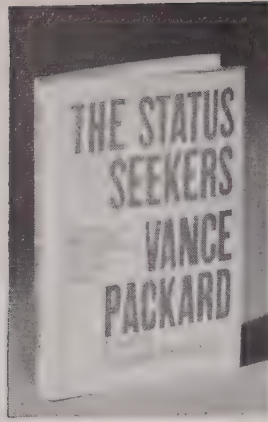
MASTER BEDROOM has wide-open view of water, and own fireplace (all three precast concrete fireplaces cost \$525, without chimneys).



TRIM KITCHEN opens to formal dining room, rear, as well as playroom and garden.



/END



Are you making the most of the status in your houses?

If not, you better get in line for a copy of Vance Packard's new bestseller, *The Status Seekers*.*

It contains more information about why your buyers buy what they buy than almost any other single volume.

Item: Do you know why there is not a bigger market for contemporary houses in most of the US? Many status seekers, says Packard, want to establish themselves by establishing the appearance of a long family background. Hence gas lamps and fan lights.

Item: Do you know why there are clutches of contemporary in Cambridge, Mass.; Berkeley, Calif.; and Urbana, Ill? The intellectual wants to prove his inquiring mind and his freedom from obvious status seeking. Hence, the venturesome house, says Packard.

Item: Do you know why you can't sell open-beamed ceilings to Polish Americans? Says Packard: it reminds them of their ancestral huts.

Item: Do you know why houses for Italian-Americans must have a separate dining room? Says Packard: this is where Italian family life centers.

Best of all, Packard's book reports:

The house is replacing the auto as the No. 1 status symbol

More and more Americans are choosing their house as the symbol of their claim to higher status because:

1. Almost everybody can now afford an expensive car.
2. The home is a better showcase for "culture:" antiques, classical records, leatherbound books, paintings, etc.

3. Home merchandisers are selling the snob appeal of status, by talking about "Early American luxurious ranches . . . on huge 1/3-acre estate sites;" or calling the living room a "reception galleria," the bedroom a "sleeping chamber;" or writing whole ads in French, the lan-

guage of snobbery.

Though the book contains many varied comments on the way Americans live—many of the comments seemingly contradictory—most of Packard's remarks on housing are

in three chapters: "Snob Appeal—Today's Home Sweet Home;" "Choosing a Proper Address;" "Exploiting the Upgrading Urge." These comments cluster round one basic idea:

People buy houses to fit the status they are striving for

As Packard sees it, supposedly class-free America is calcifying into five horizontal classes:

1. *The real upper class*: the old wealth and big wealth; the high-prestige professionals; the Episcopal minister; the directors of local industries, banks, universities, and community chests.

2. *The semi-upper class*: the "upper middle class," the confident, energetic, ambitious aspirers to class 1; the managers, civic boosters, and leading local businessmen. (Packard calls these top two classes "the diploma elite.")

3. *The limited success class*: the "lower middle class," respectable, proper, cultured, conforming, churchgoing; the non-commissioned officers of society.

4. *The working class*: the non-college, steady-working, semi-skilled backbone of the industrial unions who live for the pleasures their pay checks can buy.

5. *The real lower class*: the people everyone else looks down upon. (Packard calls these groups "the supporting classes.")

The semi-upper class is striving to be identified with the established upper class which fancies "a gem of an estate, beautifully manicured on the outside, highly polished on the inside. The house will be Georgian, Colonial, Federal, old English, or old French, with clipped hedge or rustic fence, and, inside, a central hallway and period furniture. There will be old portraits on the walls . . . the rugs will be solid-color, wall-to-wall or Oriental. The built-in bookcases will contain mostly leatherbound volumes." In approaching this goal, the semi-uppers live on much the same but a less sedate and authentic scale. "The vice presidents' wives seem a little quicker to point out the really good pieces of furniture, and to tell you something about the artist who painted the picture over the mantle." The semi-uppers are also eager to live outside of town on higher land near the country club in the area given status by the real upper class.

The supporting classes are not struggling to join the diploma elite but they are just as conscious of status. And with their fast-rising incomes they provide today's new mass market for better houses.

The working man: he's the prime target of the merchandiser

"The blue-collar people are adored by mass merchandisers because there are so many of them. They are by nature free spenders and now have money. With their wants constantly stimulated by high-powered advertising, they measure their success by what they are able to buy."

What they want to buy is quite different from what the other classes buy. They don't want the stuffy conservatism, the old world poshness, that the upper classes fancy. Nor are they ready for the new design the intellectuals take so readily. But they are eager for all the appliances, gadgets, and fancy touches you can give them. And they

can be sold new materials and sound construction.

Packard offers scores of tips on what these people like. *Item*: "The air conditioner is still cherished in many areas as an obviously costly, status-embracing touch. It is still uncommon enough in homes to provoke conversation and it can be seen by outsiders passing by." (Packard also points out that air conditioning and TV spread through a neighborhood like a rash when they were first introduced—the visible evidence of the projecting box or antenna gave ready recognition that the residents were proud possessors.)

People on the move: they're the prize market for the better house

Says Packard: "With each move a family makes, it tries to get a better house and more of the 'extras.' These families often leave rented city apartments with only a modest assortment of worldly goods and become people of property with a hunger for hard goods. . . . If they move into an area where quite a number of the neighbors have clothes dryers, they feel they must have one too, and

quickly. . . . The residents of the new suburbs are ripe for any goods sold to them as keys to social acceptance. People who have achieved a toehold in the white-collar group like to be told that they now 'deserve' the finer, more solid material things of life. When people borrow money to achieve all this birthright they should be assured that by going into debt they are on their way up."

/END

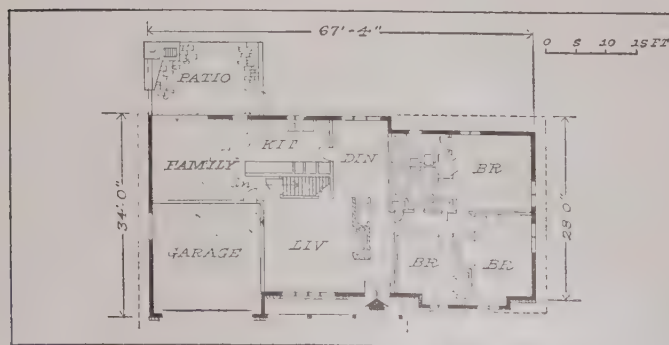


ALL-GAS PROMOTION HOUSE has snap-on window muntins, opening in deep front overhang to let light into living room. Builders Meyer &

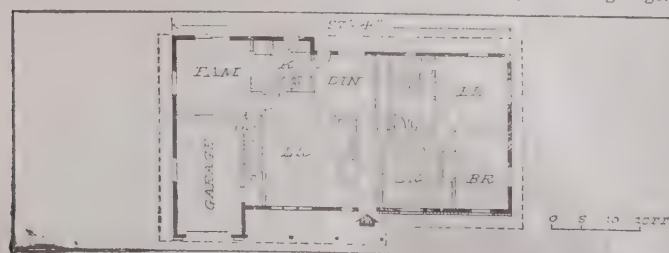
Heischman are also realtors and land developers. Sponsors: *Good Housekeeping* and American Gas Assn (with Ohio Fuel Gas Co).

In next month's Good Housekeeping magazine

12-million readers will see this promotion house



PLAN OF PROMOTION HOUSE is expanded version of basic-house plan (below). It has 1,680 sq ft of living space, terrace, two-car garage.



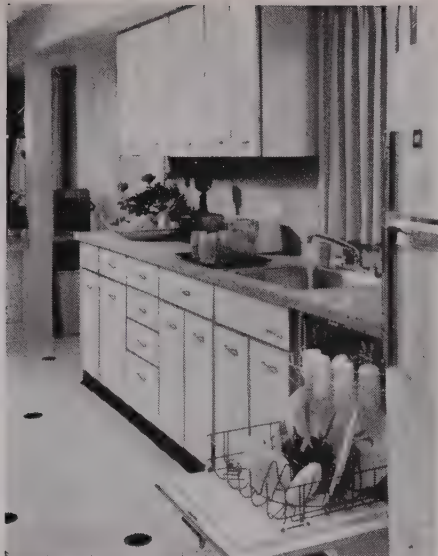
PLAN OF BASIC HOUSE was forerunner of promotion-house plan (above). It has same room arrangement, 1,350 sq ft, one-car garage.

And its builders—Meyer & Heischman of Worthington, Ohio, a Columbus suburb—expect it to draw record-breaking crowds to their Kilbourne Village subdivision.

“This model (*Good Housekeeping*’s 1959 All-Gas House) is aimed at getting publicity and stirring up excitement,” says John Meyer. “But most of our sales will probably come on our basic model—almost identical in plan, but smaller and priced closer to our market.” (New Jersey’s Jake Lefferts, builder of *Good Housekeeping*’s 1958 All-Gas House, also offered buyers a smaller, lower-priced version of his *Good Housekeeping* house).

The promotion house (top plan at left) will be featured in a 12-page, four-color article in *Good Housekeeping*’s September issue. Priced at \$37,500 on a \$5,200 lot, it is loaded with extras. Items: a paved terrace, drapes, wall-to-wall carpets, and 13 gas appliances and other gas-fueled products (ie, barbecue and fireplace lighters, three outside lights at the entrance and around the rear patio).

Meyer & Heischman’s basic house (bottom plan at left) is 330 sq ft smaller, sells for \$20,850 without land. It has a one-car—instead of a two-car—garage, smaller rooms, fewer extras, and no terrace.



CORRIDOR KITCHEN, seen from dining room, opens to family room at far end. Sink, dish-washer, gas refrigerator are on one wall (above), cooking center on other wall (right).



MULTI-PURPOSE FAMILY ROOM also serves as laundry and sewing center. Louvered doors at base of built-in cabinet close off washer-dryer when it is not in use.



BATHROOM WALLS AND FLOOR have Formica finish with marble-like pattern. Accessories were selected by *Good Housekeeping's* Decorating Studio, which furnished the house.



COOKING CENTER is convenient to dining room, in background, and family-room, in foreground. Appliances—two built-in ovens, countertop range, and griddle—all operate on

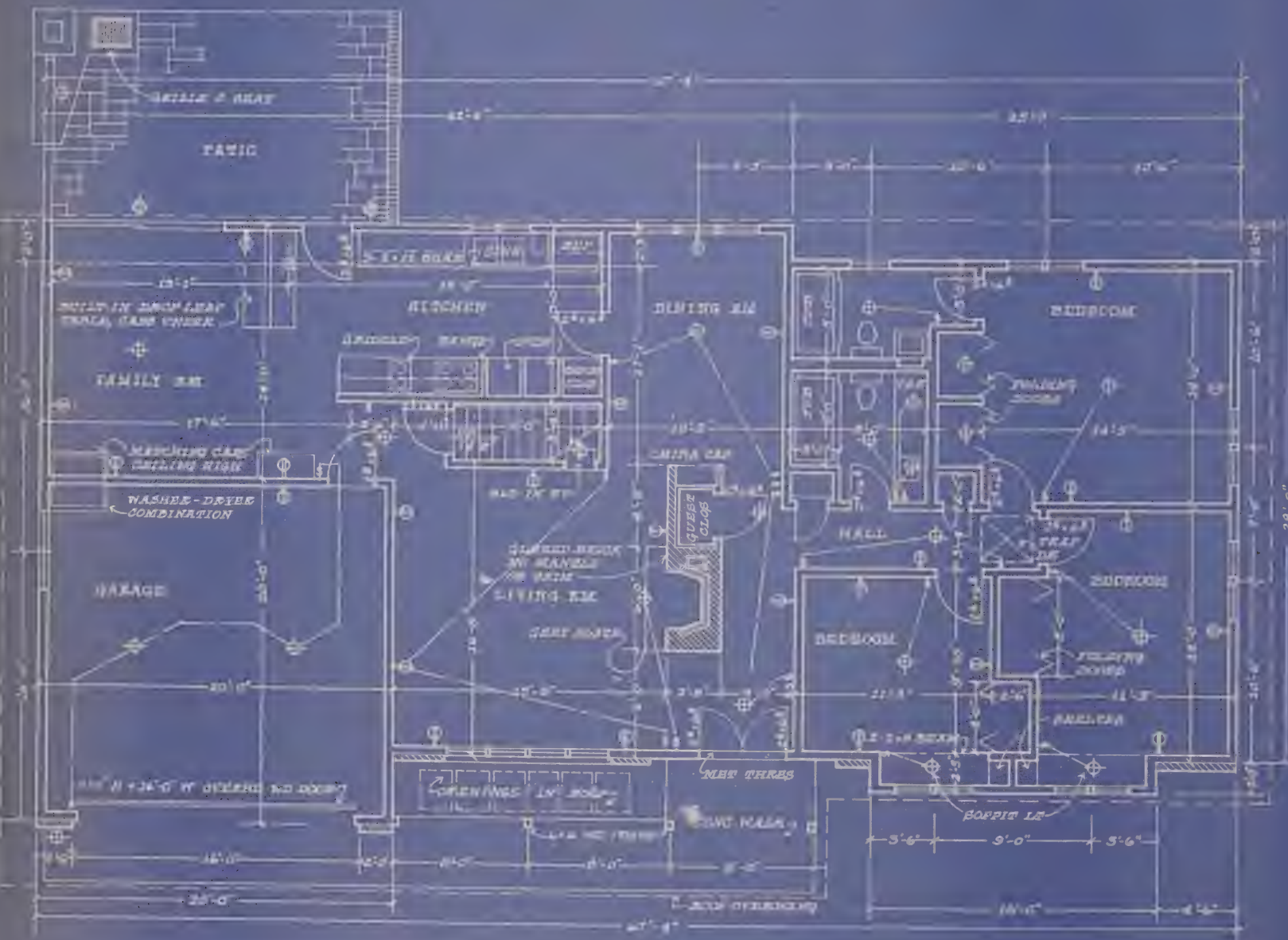
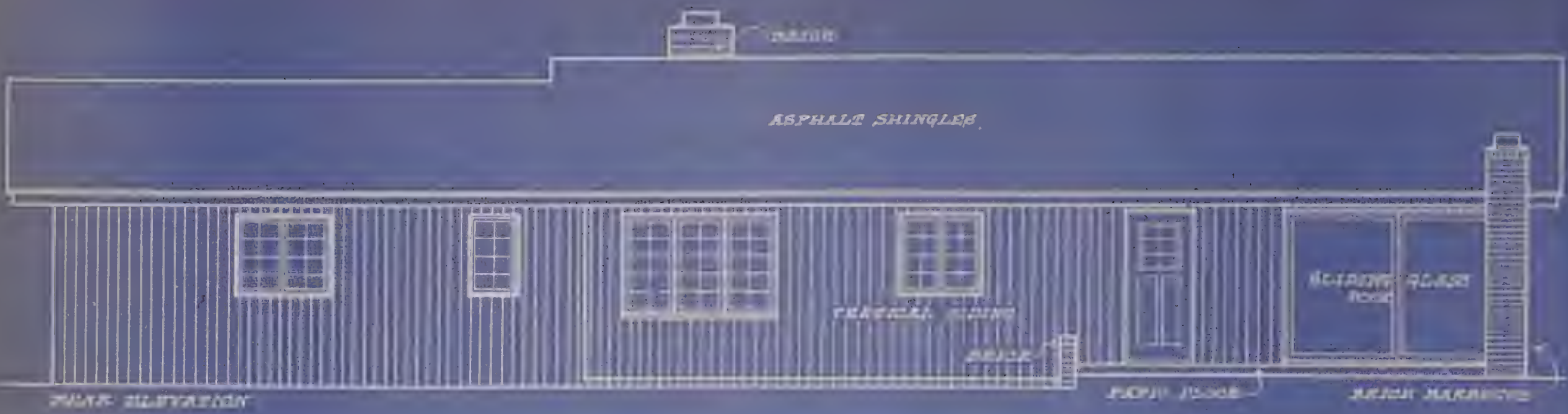
gas. Kitchen cabinets are steel. Counters and table top are Formica. *Good Housekeeping* supplied light fixtures, like one at left, also donated carpets, drapes, and wallpaper.



LIVING-ROOM FIREPLACE is glazed brick just like brick used on exterior of house (opposite page). Free-standing fireplace wall separates living room from front hall, hides it

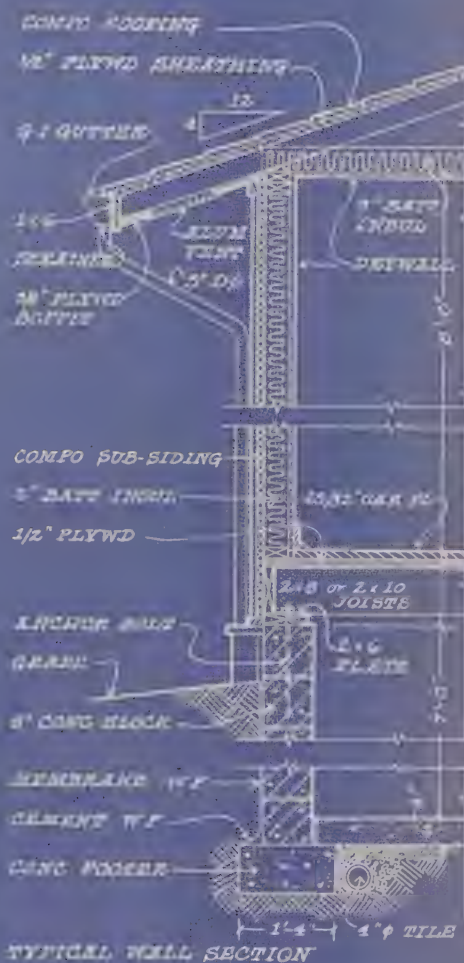
from bedroom hall, and helps set it off from dining room. Furnishings are keyed to American Provincial theme, as are double entrance doors with fanlights at right.

plans and selected details on next page

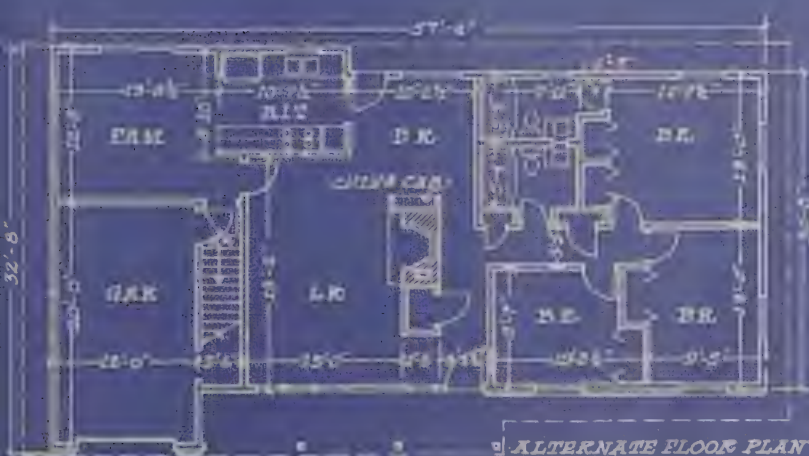




CHINA CASH/USD



TOOTHACHE TREATMENT SECTION



ALTERNATE FLOOR PLAN



VERT ED & BATT PLWVD PANEL 6167558
ALTERNATE FRONT ELEVATION

SELECTED DETAILS FROM A HOUSE IN COLUMBUS
BUILDERS : MEYER & HEISCHMAN
ARCHITECT : KEITH B. URBAN

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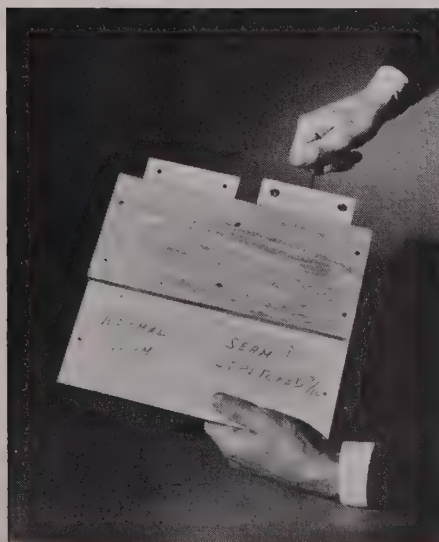
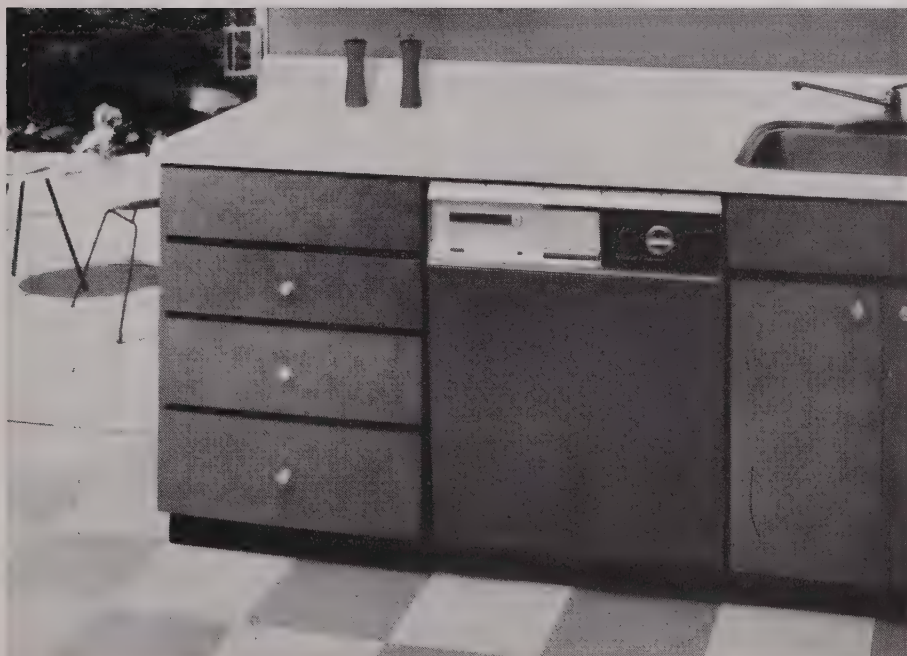
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Starting here

New products



Roll-out dishwasher from Westinghouse now has a booster to raise water temperature to 140F. Fan-forced hot air dries the dishes. Unit is only 24" wide, holds complete service for ten persons, uses eight gallons of water during a complete cycle. Fronts come in color, prime coated for on-site painting, or in maple wood to match Westinghouse cabinets.

Westinghouse, Pittsburgh.

For details, check No. 1 on coupon, p 214

Formica sealant (left) is flexible to expand or contract with 10" Formica tiles. Strong adhesion to tile edges prevents seal breaking. Material will not dry to a hard consistency. Five-ounce tube, enough for average bath: \$1.50.

Formica Corp, Cincinnati.

For details, check No. 2 on coupon, p 214

And on the following pages

Technology

New take-down wall system . . . Now you can figure lot sizes electronically . . . New "better building" report from Penn State . . . new crawl space floor system . . .

p 159

What the leaders are doing

Hawaii's fastest selling houses . . . A two-story prefab designed by Frank Lloyd Wright . . . Push-button scale model of new community . . .

p 173

Publications

How to use Alply panels . . . News about wood . . . New catalogs of range hoods, intercoms, heaters . . . Spec sheets for duct insulation, door operators, airless sprays . . .

p 210

More

New products

Pumps for well water systems . . . Built-in TV . . . Bathroom fixtures . . . Incinerators and garbage disposers . . . On-site power tools . . .

p 191

Here's why it pays you to install **THE NEW *Carlrim* SINK** —the sink every woman wants in her kitchen



New Sanitary Self-Rim
No separate rim to gather dust or grease. Fits any standard cut-out.

Permanent Sparkle Finish
Exclusive, smooth Carlton finish lasts forever; actually improves with use.

Harmoniously Designed
Designed to conform harmoniously with other modern built-in appliances.

Easy, Perfect Installation
Adjustable lugs permit perfect installation in any counter-top material.

No Chance of Dimpling
Sink flanges remain smooth and unmarked even under greatest clamping pressures.

Pre-Attached Pressure Strips
Special pressure strips prevent lug bolts from dimpling sink flanges.

Blends with Any Color Scheme
Polished surfaces enhance kitchen decor and blend with wall and counter top colors.

More Safety and Less Care
Type 302 (18-8) stainless steel provides more safety; requires less care.

All-Around Welding
Continuous welding of lug channels increases strength; prevents distortion.

Distributed by Quality Wholesalers from coast to coast. Write today for the new Carlrim Catalog. Sink Division, Carrollton Mfg. Company, Carrollton, Ohio.

A complete line of Carlton Scullery Sinks is also available. Special catalog sent on request.

Still other reasons: Every Carlrim Sink (offered in 19 different models) is engineered for greater efficiency, such as larger bowl capacity, sound-deadening undercoating, splash-free narrow bowl divider. Stainless steel's extra resilience also reduces chipping of dishes, marring of silverware.

CARLTON
STAINLESS STEEL
SINKS

You just can't buy better when you buy a Carlton Sink



visibility unlimited
maneuverability unexcelled

new **MASSEY-FERGUSON 406** *the BIG CHANGE in tractor shovels*

Have loading power at your finger tips... speed and directional control at a touch of your toe... and see wherever you go — that's why this all-new, streamlined Massey-Ferguson 406 is the BIG CHANGE in tractor shovels.

Instant Reversing, all-around visibility, full 1 cu. yd. bucket, lets you get more loads, bigger loads, and outperform larger, more expensive machines. And, you can handle the precision, utility jobs more efficiently and economically. Low-thrust point, high reach, multitude of integrated attachments including the famous Davis Backhoe make it the most versatile, profit-producing rig in its class.

IT'S WORTH BUYING!

For a real eye-opener, let your Massey-Ferguson Industrial Dealer demonstrate this "years ahead" tractor shovel for you. Write for his name and illustrated literature.



a touch of your toe — away you go — forward or reverse



**MASSEY-FERGUSON
INDUSTRIAL DIVISION**

Block 1000 South West Street • Wichita 13N, Kansas

Bordering the shoreline of Long Island Sound at Bayside, Queens, New York is Bay Terrace, a model community development for suburban living. It will ultimately include 60 apartment buildings like this, and provide country club and pool facilities.

Alex Danin, A.I.A.,
Architect

Showplace Beauty for Bay Terrace-

3120 planned apartments

New York's newest,
largest, suburban
apartment development

features **PREWAY**
®

Bilt-In Ranges



The PREWAY kitchen as shown in Bay Terrace model apartment.



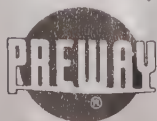
Shown here in their office checking out plans are Lester Weindling and George Browne, members of the N. K. Winston-A. Holzer building organization, well known for its outstanding suburban community developments.

Foot for foot, the kitchen gets more hard wear than any room in an apartment — (or a home, too, for that matter.) Making it a SHOWPLACE and being sure that it will retain that showplace look over the years, requires more than good intentions. It *demand*s careful planning.

With this in mind, Lester Weindling and George Browne deliberately checked out contemporary gas built-ins, specification by specification. They selected PREWAY on hard facts. More costly, yes . . . but here was the look of luster they wanted in styling, plus an

extra measure of value in solid long-lasting construction. And back of this superiority was the best performance record in the New York area, as verified by the experience reports of other quality builders.

PREWAY makes both gas and electric built-ins to suit your building plans — provides dependable, on-time deliveries from reliable, carefully selected distributors who are always at your service. For the one nearest you, and for full information on the PREWAY Bilt-In Appliances of interest, write for full color specification bulletins.



Inc., 2859 Second Street, N., Wisconsin Rapids, Wisconsin

SINCE 1917 — Pioneer manufacturer of built-in appliances . . . refrigerator-freezer combinations, gas and electric ovens and surface units, ventilating range hoods, dishwashers.

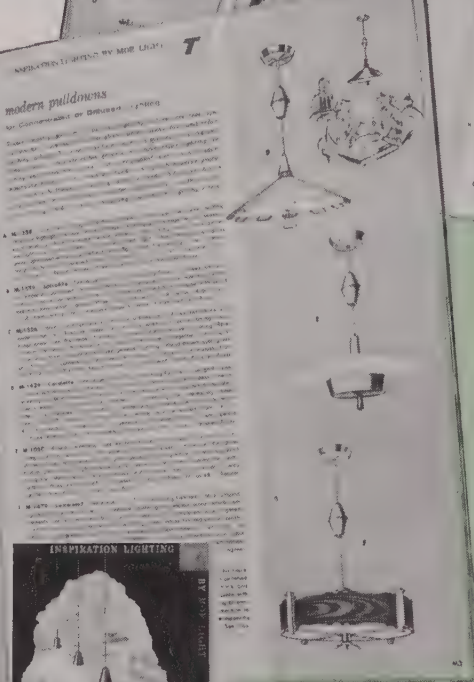
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Easiest way to keep ahead of your competition...best way to flatter your homes...quickest way to the heart of a home buyer! MOE Light brings you the latest ideas in lighting...MOE Light Inspiration Lighting, the newest styles in nationally advertised fixtures. Put them both together and they spell *profit!*



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"It's like having an extra partner in your operation when you build Pease Homes," report Earl Bailey and Bert Udell, developers of popular Kimberly Acres in Youngstown, Ohio. "Pease customized architectural service helped us make every home different and tailored to fit its lot. This individuality was a vital factor in our success."

"But that was just the beginning. Pease also showed us how to put up homes faster and more efficiently. Then helped us merchandise and advertise for fast turnover."

This highly successful Northern Ohio building duo, now starting the seventh section of their development, are typical of the many modern builders who rely on the complete program of Pease services to make more money.

You, too, can convert F.H.A. approved land to liquid profits faster by building Pease Homes and utilizing Pease Customized Architectural Service . . . Personalized Model Home Merchandising and Promotion . . . F.H.A. Processing and Financing Service . . . and Model Home Financing.

*For full information write or phone
William Stricker, General Sales Manager, and
arrange for a Sales Representative to call.*

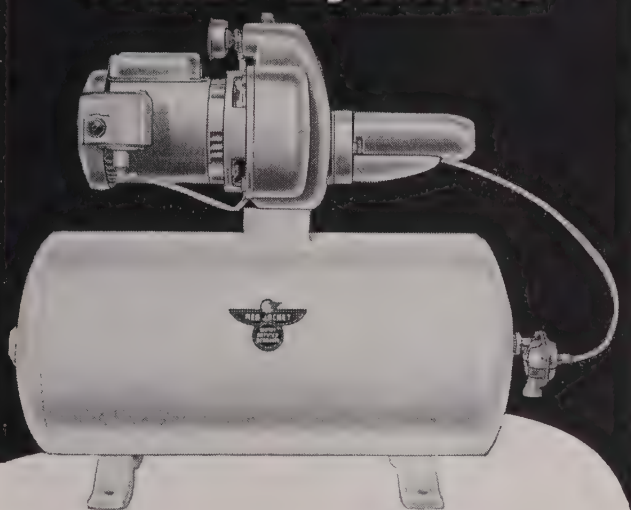
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insist on RED-JACKET Water Systems



You eliminate expensive call-backs to homes you build beyond the water mains when you insist on Red Jacket Water Systems. You are not only assured of long dependable water pumping service but that appliances depending on water supply continue to give customer-satisfying performance.

Red Jacket Water Systems are engineered from the foot valve, through pump and controls to the pressure tank to give year-after-year of satisfying operation. There's a pump to meet every water system need, too—economical shallow well jet and reciprocating pumps, convertible shallow and deep well jet pumps and big capacity submerga pumps. These pumps are only sold through qualified dealers who can recommend the size and type to satisfy home buyers and allow you to sell competitively. These same dealers can cut your call-backs, too. They stand behind every pump they sell with guaranteed parts and service.

For the water systems that will cut your call-backs contact your nearest Red Jacket dealer or write directly to the factory.

RED JACKET MANUFACTURING CO.

Davenport, Iowa

WJ-79



RED JACKET MANUFACTURING CO., Dept. PB7
Davenport, Iowa

Gentlemen:

Please send me complete information about your:

☐ Jet Pumps ☐ Submerga Pumps

Name.....

Company.....

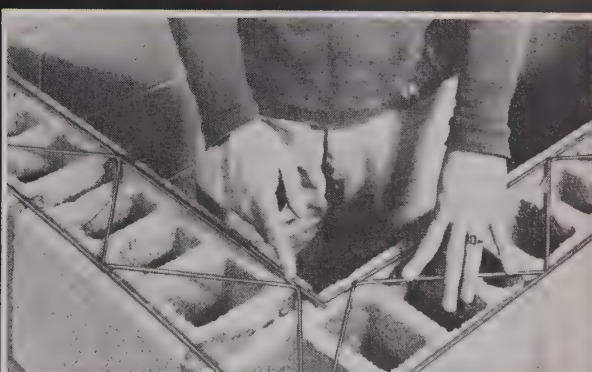
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COMPARE THESE WEIGHTS

Standard Dur-O-wal 187 lbs. per 1000 ft.
Standard Ladur Type 139 lb's per 1000 ft.

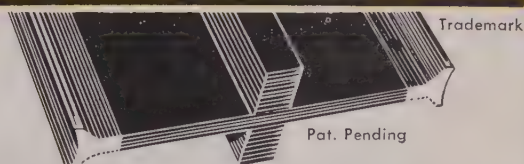


Insist on genuine Dur-O-wal for crack-free masonry walls with a backbone of steel

IT'S THE **S**teel + **D**esign
THAT ASSURES **R**esults

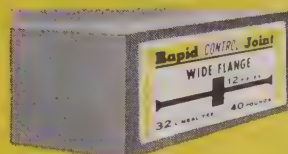
New Companion Product for Masonry Walls

Rapid CONTROL Joint

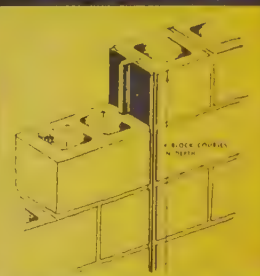


Neoprene compound flanges with concave edges allow easy compression and tight control joints.

WIDE FLANGE



Wide Flange rubber control joint shipped in convenient cartons.



DUR-O-WAL

Rigid Backbone of Steel For Every Masonry Wall

Dur-O-wal Div., Cedar Rapids Block Co., CEDAR RAPIDS, IA. Dur-O-wal Prod., Inc., Box 628, SYRACUSE, N. Y. Dur-O-wal Div., Frontier Mfg. Co., Box 49, PHOENIX, ARIZ. Dur-O-wal Prod., Inc., 4500 E. Lombard St., BALTIMORE, MD. Dur-O-wal of Ill., 119 N. River St., AURORA, ILL. Dur-O-wal Prod. of Ala., Inc., Box 5446, BIRMINGHAM, ALA. Dur-O-wal of Colorado, 29th and Court St., PUEBLO, COLORADO Dur-O-wal Inc., 165 Utah Street, TOLEDO, OHIO

One day in five... GAS FREE!						
Sun.	Mon.	Tues.	Wed.	Thurs.	FREE DAY	Sat.
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Here's the economy champ—the Ford Styleside pickup for '59.

'59 FORD PICKUPS GIVE 25.2% MORE MPG!

Certified! 25.2% more miles per gallon than the average of other leading pickups in Economy Show-down tests. And 25.2% means five days' driving on four days' gas!

Now, from independent research engineers come certified facts on truck economy!

Standard six-cylinder models of all leading ½-ton pickups were put through the same series of road trials. After careful break-in and tune-up, they were tested at low speed and high... in simulated city traffic and door-to-door delivery.

And the '59 Fords outstripped every other make *in every test*. Altogether, they delivered 25.2% more miles per

gallon than the average of all the other pickups! Here's the record—*certified* by the nation's leading independent automotive research firm:

'59 Ford Pickups' advantage

- 42.6% more mpg than Make "D"
- 31.1% more mpg than Make "I"
- 25.2% more mpg than Make "C"
- 22.0% more mpg than Make "S"
- 9.6% more mpg than Make "G"

25.2% more mpg than average

A 25% advantage in gas mileage mounts up fast, too! It's one gallon

saved in every five. One day in five... *gas-free!* Over the years you own a truck, it can save you hundreds of gallons—and dollars! Get all the facts at your Ford Dealer's now!

Go FORD-WARD for savings

FORD TRUCKS COST LESS

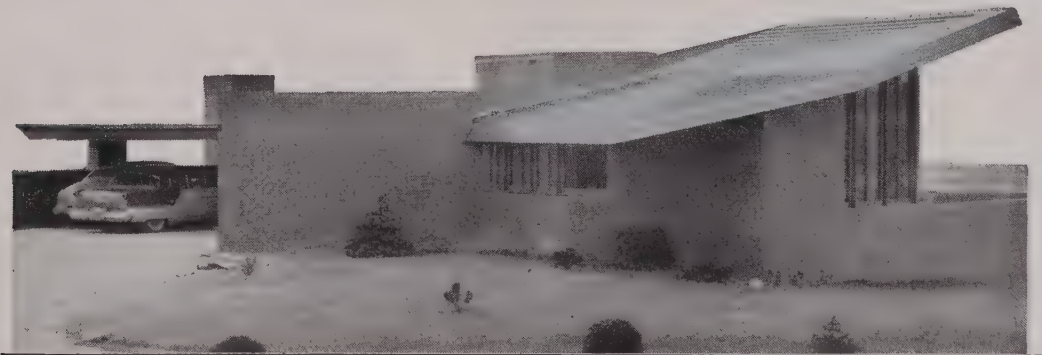
LESS TO OWN...LESS TO RUN...LAST LONGER, TOO!

All tests
conducted and results
CERTIFIED
by America's foremost
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DISTINCTIVE CONCEPTS in roofing with FOLLANSBEE TERNE



The striking roof effects that can be created with Follansbee Terne give any house a distinctive beauty not possible with ordinary roofing materials.

Follansbee Terne is metal roofing at its best—used by architects because it gives them freedom of design and an opportunity to make the roof an important part of the exterior effect—used by sheet metal contractors because it is easy to work with and forms a perfect soldered joint.

Builders recognize the outstanding sales features of a Follansbee Terne roof immediately. In addition to its beauty, a Terne roof will last a lifetime. It can be painted any color, any time; when painted white or a light color, a Terne roof will reflect most of the sun's heat.


There are other facts about Follansbee Terne that we would like to tell you about. Why not write for them today?



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Follansbee, West Virginia

TRUSCONOMY



Great new products—designed especially for today's home-building market—with excess costs engineered out, and Truscon quality built in. That's Trusconomy—Truscon's brilliant new economy line of metal windows and doors.

NEW! Series 500 Aluminum Awning Window. Loaded with quality features usually found only in the highest priced merchandise. Sturdy, substantial operators. Top vent moves down and out away from the frame, leaves space to reach through for washing from inside. Beautifully finished. A window you'll be proud to show. And, low purchase price buys it.



NEW! Aluminum Horizontal Sliding Window, Series 700. Nothing flimsy about this beauty. It's rugged. And, it's graceful. Glides easily, weathers

New economy line offers traditional Truscon quality at low purchase price

wonderfully. Sash slips out for easy washing from inside. It's a window you'll be proud to demonstrate. And, low purchase price puts it into your homes.

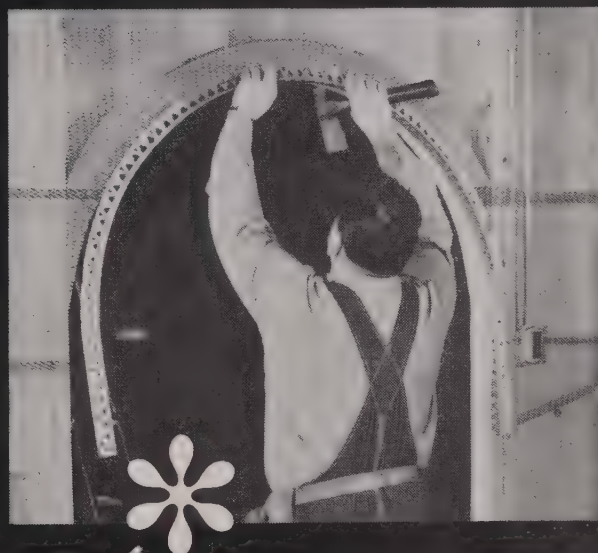
YOU SAVE! Truscon Hollow Metal Doors and Frames save dollars all the way. Install in 15 minutes, complete with all hardware. No cutting, no sanding, no planing, no fitting. Frame is finish trim and serves as plaster return. Bonderized and primed. One-coat painting does the job.

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Name _____ Title _____

Firm _____

Address _____

City _____ Zone _____ State _____

"We telephone plan
our homes as carefully
as we plan for
electrical wiring"

—SAYS DAVID S. BINNS,
EXECUTIVE VICE PRESIDENT,
BINNS VALLEY FORGE HOMES, INC.,
VALLEY FORGE, PA.



This is "The Wingspread," a Valley Forge Mountain model home. Above, its spacious kitchen, with convenient telephone nook, is shown by Mr. Binns to telephone company representative Ed Hausner.



Thirty minutes west of Philadelphia lies Valley Forge Mountain, a gracious community of custom-built residences priced \$30,000 and up. These homes offer a complete line of modern conveniences.

Telephone planning is one of them. Each Valley Forge Mountain home has built-in, concealed wiring for 5 or more telephone outlets.

"People expect to find telephone planning in a quality home," says builder David Binns. "Our aim is to design and build completely *modern* homes—and planning for complete telephone flexibility is a necessary part of that concept. We telephone plan our homes as carefully as we plan for electrical wiring and other modern conveniences."

* * *

Your local Telephone Business Office will gladly help you with telephone planning for your homes. For details on home telephone installations, see Sweet's *Light Construction File, 8i/Be*. For commercial installations, Sweet's *Architectural File, 32a/Be*.

**BELL
TELEPHONE
SYSTEM**





Best-selling rubber floor tile found in best-selling homes!

The brilliant good looks and rich luster of B. F. Goodrich rubber floor tile are two big reasons why it is preferred. But that's only half the story. This tile actually *feels* different to the touch . . . its super-dense smooth surface defies dirt and grime . . . natural resilience makes it quiet and comfortable underfoot. It withstands punishing foot traffic and still retains its rich, brilliant beauty.

Install on or above grade. Tile in 1/8" thickness and economical 80 gage for residential use, size 9" x 9". In 21 sparkling colors. For further information, contact: The B. F. Goodrich Company, Flooring Products, Watertown 72, Mass., Dept. HH-8.

B.F. Goodrich *Flooring Products*



**RUBBER
FLOOR
TILE**

Gerber helps you sell

THE MIGHTY MIDDLE

Gerber specializes in plumbing fixtures for your biggest, most profitable market



Location . . . The Mighty Middle is the Mass Market. The vast majority of the population of the U.S. lives within 280 Major Trading Areas. It is these Major Trading Areas where the new building and remodeling is being done. The Mighty Middle is your Profit Market. Your greatest volume of sales is made to this tremendous Mass Market. Your greatest opportunity for profit lies in selling the Mighty Middle.

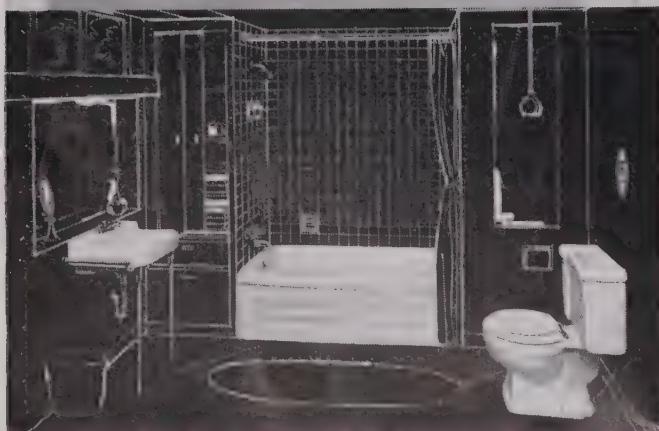
*Source: 1958 Sales Management Marketing Directory of Metropolitan County Areas.

Copyright by RAND McNALLY & COMPANY, R.L. . . . 59 S 17

The centralized market in which you operate presents your greatest profit opportunity. Nine out of ten prospects in this market—The Mighty Middle—want popular priced *quality* plumbing fixtures when they buy a new home or remodel. Gerber makes plumbing fixtures for only this market — deluxe fixtures that increase the saleability of your homes, or help you close more remodeling sales — without increasing your costs.

By specializing in fixtures for only the mass market, Gerber can give you more for your money. We make no slow-moving "ultra-luxury" items that add costs which must be absorbed by the more popular fixtures. Thus, we can offer smart styling, high quality, and deluxe features usually found on more expensive plumbing fixtures, at a sensible price.

Gerber makes a complete line, including deluxe or economy "packaged" bathrooms that save you money on specifying, ordering, shipping and receiving. In stainless white, or petal pink, wedgewood blue, forest green, driftwood tan, daffodil yellow, cloud gray.



The Bermuda deluxe bathroom for The Mighty Middle, with porcelain enameled steel recessed tub (05), 3-valve bath and shower diverter (4802), and trip-lever drain (181G). Ledge type lavatory (380) has centerset with aerator and pop-up drain (143A). Deluxe unit-type closet has reverse-trap, and is available in 10", 12" and 14" rough-in (1200). In stainless white, or petal pink, wedgewood blue, forest green, driftwood tan, daffodil yellow, cloud gray.



The Catalina economy bathroom for The Mighty Middle, with porcelain enameled steel recessed tub (006), with connected waste and overflow (189GB) and over-the-rim tub filler with Econo spout (E480). Ledge type lavatory (310) has concealed overflow, centerset faucet (141). Close-coupled washdown closet has 12" rough-in. In stainless white, or petal pink, wedgewood blue, forest green, driftwood tan, daffodil yellow, cloud gray.

Write for Gerber Folder 418



GERBER

Plumbing Fixtures

Gerber Plumbing Fixtures Corp., 232 N. Clark St., Chicago 1, Illinois

Dependable service from leading jobbers, or prompt delivery direct to your job from 5 modern factories: Kokomo, Ind., Woodbridge, N. J., Delphi, Ind., Gadsden, Ala., West Delphi, Ind. Export Division: Gerber International Corp., 500 Green St. Woodbridge, N. J.



Pastel Cherry... Sherwood Oak

Two new and charming finishes

exclusively in

Craftwall

wood paneling



Pastel Cherry . . . the charm of fine cherry wood, now in a new, soft pink tone. Blends beautifully with today's smartest furnishings and color schemes.



Sherwood Oak . . . with the stout look and natural warmth of paneling found in old English inns. The mellow finish is ideal for a family room like this.

These stimulating new wall panelings have the genuine hand-rubbed look that has made Craftwall famous. They're professionally pre-finished to give the most durable wood surface known. Every "plank" is hand selected to show rich, natural grain.

Pastel Cherry and Sherwood Oak . . . the newest additions to the famous line of Craftwall woods . . . can give your homes the feel of gracious living so important to today's home buyers and prospects. The rooms above, as featured in *Craftwall* advertising in *Better Homes and Gardens* and other magazines, show how beautifully it can be done.

In addition to these dramatic new tones, builders may choose Craftwall paneling in any

of these popular woods: *Elm*, two kinds of *Birch*, *Mahogany*, *Cherry*, *Oak* or *Walnut*. All have the exclusive Craftwall finish that resists dirt, stains and scuffing—doesn't ever need waxing! Cleaning is easy with just a damp cloth. Craftwall comes in easy-to-install modular

panels (48"x96", 48"x84", 32"x64", 16"x96", or longer) that go up fast with nails or Roddis Contact Cement. And Craftwall is guaranteed for the life of the installation, in writing! Send coupon for more information on all 9 Craftwall woods.

Roddis also offers custom Hardwood Paneling . . . Doors . . . Wood Finishes . . . Adhesives . . . Plywoods . . . Timbers



Builders' Craftwall Fact File on request!

Roddis Plywood Corp., Dept. HH-859, Marshfield, MA 01104
Please send me the Builders' Fact File on wood paneling.

Name

Firm

Address

City State



6 Decorator Colors
Plus Snowy White



*The all-new Estate...by Eljer...
the luxury look for distinctive homes*

The *Estate*, Eljer's new deluxe siphon jet toilet, is right for America's finest homes. It is modern in looks, with eye-appealing style from the staff of famed designer Dave Chapman . . . modern in operation, with improved flushing action . . . modern with new installation features engineered by Eljer's mechanical experts.



You're so right with ELJER

*Now,
Eljer presents . . .
another new line of
pretested fixtures*

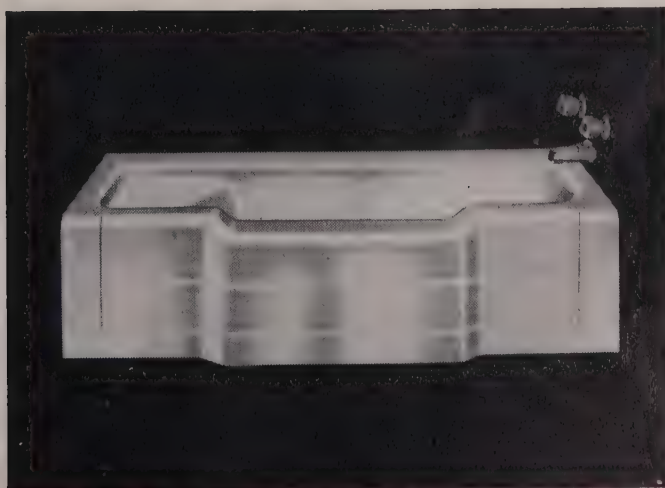
In a research project unique to the industry, Eljer's new luxury creations have received advance, enthusiastic endorsement from the home building and buying public. The *Estate*, deluxe siphon jet toilet, shown on opposite page, offers many exclusive and outstanding features.

- Improved, positive flushing action.
- Vitreous china . . . easy to clean and keep clean.

- Recessed tank gives appearance of one-piece toilet.
- Integral china overflow and ground-in valve seat.
- Scientifically balanced bowl . . . only two bolts needed for easy, secure installation.
- Two flat bolt hole covers . . . for easier cleaning.
- Patented snap-action float valve.
- Six pastel colors and white.

ELJER
Division of The Eljer Corporation of America

*Three Gateway Center
Pittsburgh 22, Pa.*

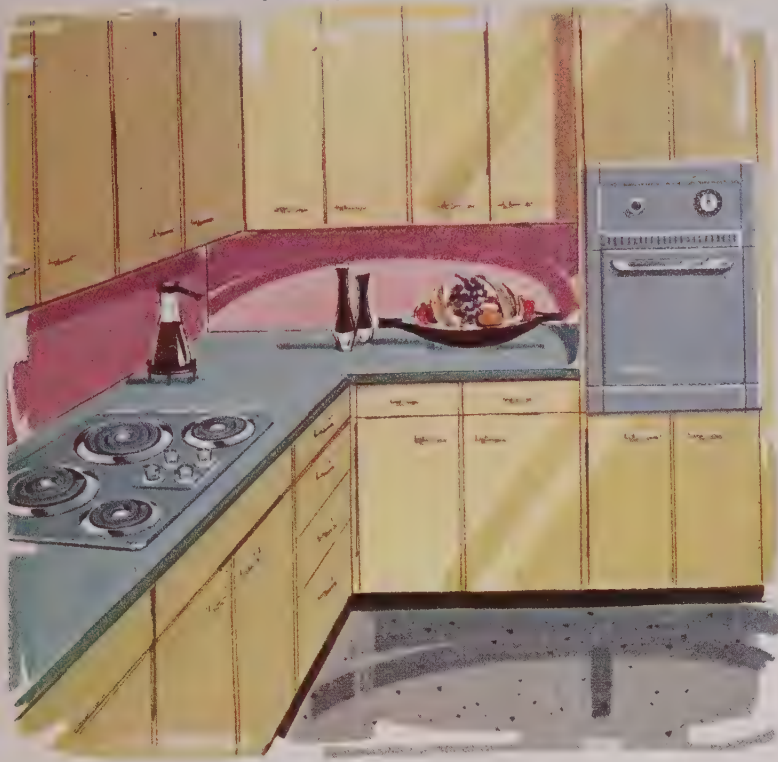


Available soon:

The new *Brent* vitreous china lavatory with cabinet in dark or blond finish brings furniture quality to the bathroom. Wide, flat surfaces drain into the basin, and there is ample knee and toe space under the lavatory. New monogrammed Luxury Brass with plastic prism handles adds a special touch of elegance. Lavatory in six pastel colors and white.

Companion for the *Estate* is the *Legation*, luxurious 5½' cast iron recess bath with integral end seat and 6" wide, low rim seat. Six pastel colors and white.

FOR \$10,000 HOMES



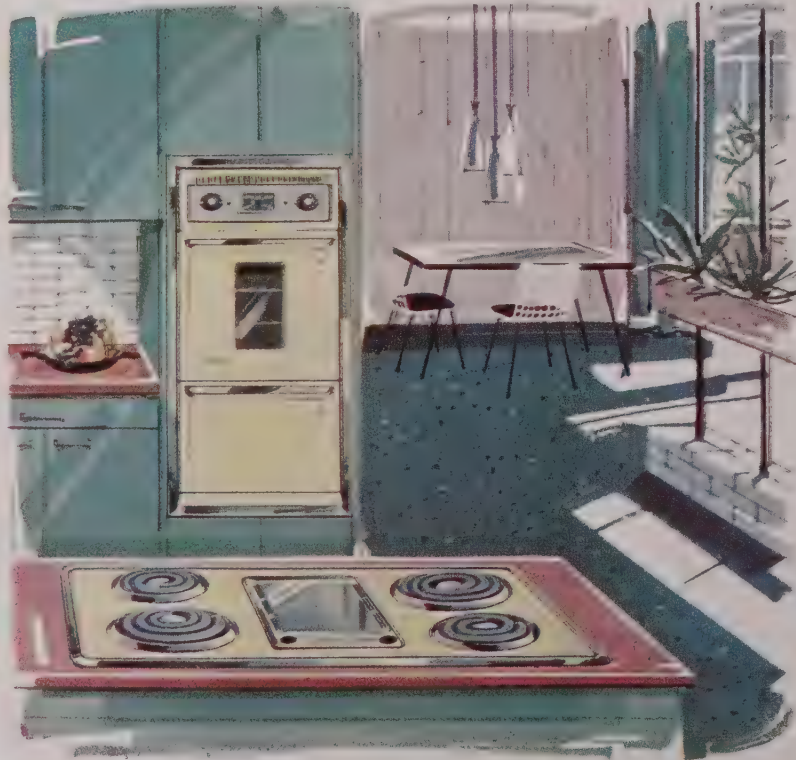
\$14,000 HOMES



\$18,000 HOMES



AND HOMES OVER \$20,000



Suburban BUILT-IN RANGES

GAS OR ELECTRIC—BEST VALUE AT EVERY PRICE LEVEL

Regardless of the price homes you build, you can include the sales power of Suburban and offer prospects all 36 of the features most women want in a built-in range. Here's real quality at a price you can't beat! Plus—models available in both gas and electric to fit same size cabinet opening—interchangeable. Get your value-packed price from your local distributor. Send coupon today!

Free Color Literature!

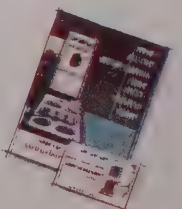
Samuel Stamping and Enameling Company
Dept. HH-89 — Chattanooga, Tennessee

Send me complete information on Suburban Built-in Ranges ☐ Gas ☐ Electric

Name

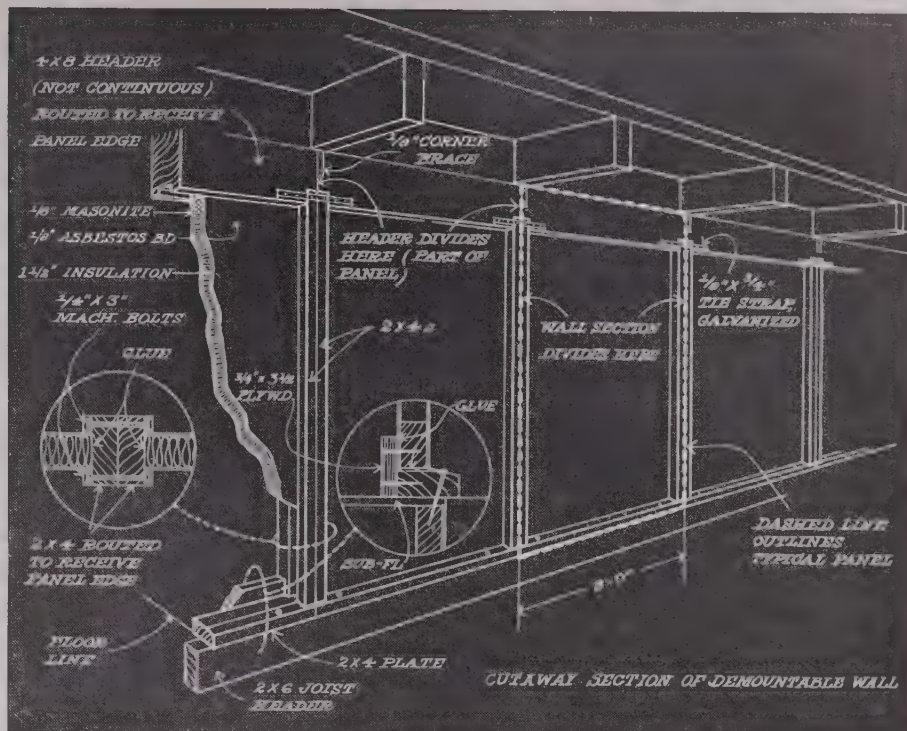
Address

City State





PANELS ARE LIGHT, easy to tilt into place on sill. Header is integral with panel.



DETAIL shows how split posts are bolted together to join panels. Since there is no

“permanent” connection between panels, wall can be unbolted, moved or stored, re-used.

This new wall system can be dismantled and moved

“Because of the 4’ modular panels are bolted together,” says California Builder Foster C. Phelps (who designed the system), “houses built with these components can be taken apart and reused. This would save money for the government or corporations that need good housing for short periods of time.”

Phelp’s system is more than an experiment in demountability. It also shows that a post-and-beam house can have one basic component instead of three (see below).

Here is how the new system works

Each panel edge is actually half a post, and the panel top is a length of fixed header. Wall sections are glued into the

posts and header. So this one component incorporates the three elements—post, header, and wall—of a conventional post-and-beam house (see drawing above).

Adjacent panels are joined by bolts through the “flange” formed by the split posts. Window openings are provided simply by using shorter wall panels and routing surrounding frame members to take sashless sliding glass. Doors are hung between posts, without separate frames.

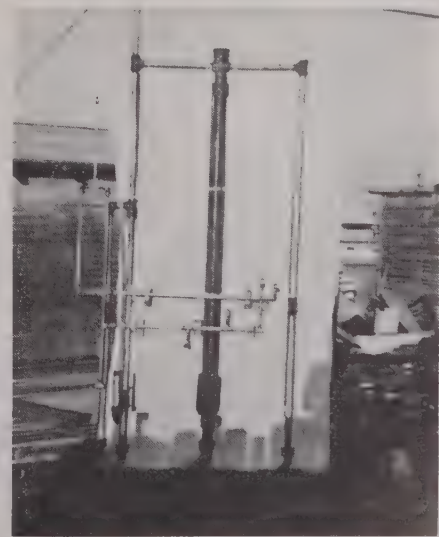
Panels have a U factor about .20, and an 8’x8’ panel section will sustain 7,200 lbs of lateral force before failure.

Phelps tested his system by building the house shown below. He figures his cost at “20% to 30% less than conventional construction.”



EXPERIMENTAL HOUSE was built in designer-builder’s backyard, disassembled, and

moved to beach site to prove demountability. At beach, piling foundation was used.



PLUMBING TREE is panelized like walls, can be disconnected and re-used.

Technology continued on p 162

On the rise —

First Insulated Door Designed Exclusively for Use with Dual Glazing. See Thermo Door's threshold and lower section at right. Black insulation separates inner surfaces from outer. Note double weatherstripping, heavy duty extrusions, stainless steel track.

new 2 in 1 insulated sliding glass door controls climate extremes

Now in use in Alaska and 31 other extreme climate states is a refreshingly different kind of sliding glass unit. It is the new insulated Thermo Door, engineered to control damaging condensation and expensive heat lost through the metal of the door.

Designed exclusively for use with dual glazing, it provides heat control efficiency—winter and summer—similar to that of dual glazing itself. Like dual glazing it consists of an inner unit and an outer unit separated by continuous strips of non-metallic insulation.

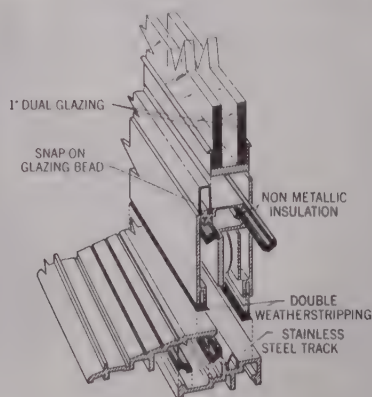
The most efficient weather seal design yet devised uses double weatherstripping of hi-pile silicone-treated

mohair inside and outside to seal out snow, wind, rain, and dirt, and restrict heat flow.

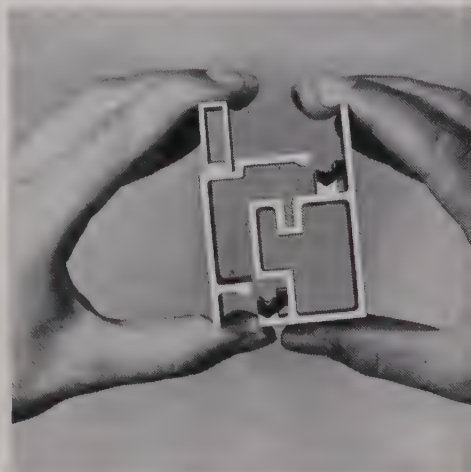
The result—first insulated sliding glass door exclusively designed for dual glazing controls costly heat loss and condensation in the cold of winter; in summer provides new efficiency and savings in air conditioning costs.

To the architect, contractor and owner concerned with the application of sliding glass doors in extreme climates, the Ador Thermo Door is the first to offer a practical solution to year around comfort. For complete information see your Ador dealer, or just mail the coupon below.

How Climate Problems
are controlled by
Ador Thermo Door



Heat and Condensation Control—Thermo Door threshold and lower door section shows how interior surfaces are separated by insulation, in black, from exterior surfaces to assure year around comfort.



Secret of the Ador Thermo Door is shown in stile extrusion section. It actually is two units—1, an outer door frame; and 2, an inner frame—separated by insulation which restricts heat flow and reduces condensation.

Insulated *Thermo Door* by *Ador* America's Foremost All-Aluminum Sliding Glass Doors

MAIL THIS COUPON

Ador Corporation
2345 W. Commonwealth Ave.
Fullerton, Calif.

Please mail information on the insulated Thermo Door:

Name _____

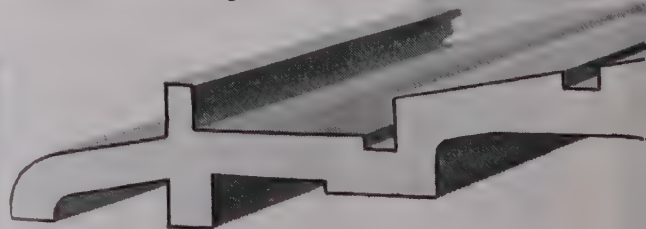
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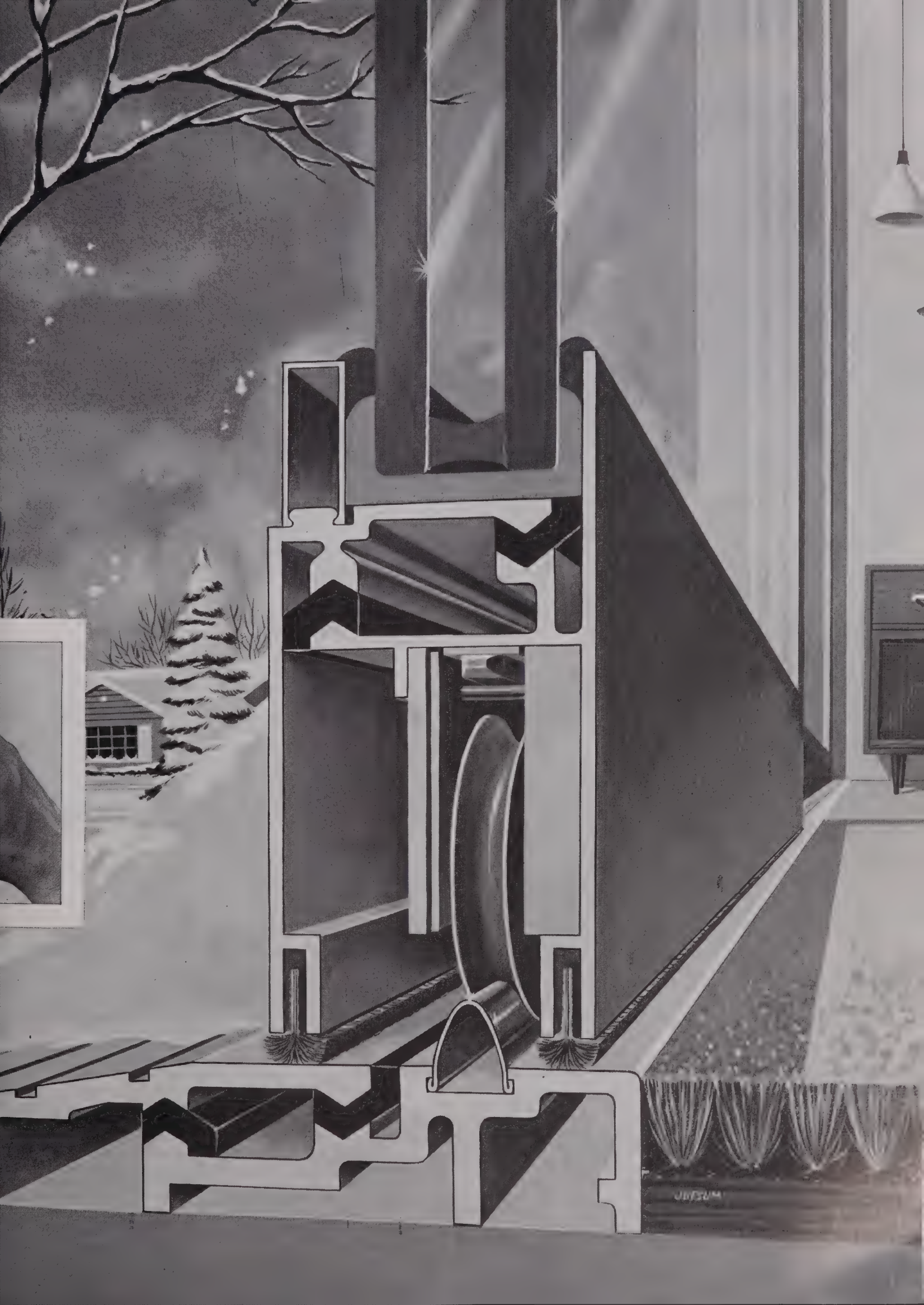
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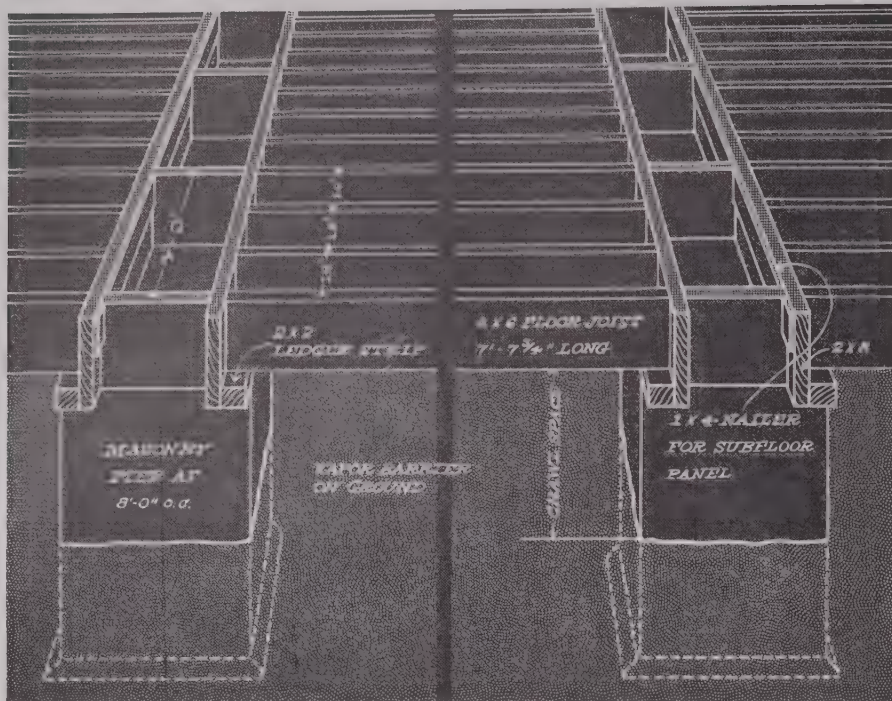
City _____ State _____

STANDARD THERMO DOOR TYPES AND SIZES

DOOR TYPE	DOOR SIZE
TYPE 2 XO OX	6'0" x 6'11 3/4" 8'0" x 6'11 3/4" 10'0" x 6'11 3/4"
TYPE 3 OXO OOX or XOO	8'10 5/8" x 6'11 3/4" 11'10 5/8" x 6'11 3/4" 14'10 5/8" x 6'11 3/4"
TYPE 4 OXXO XOOX	11'9 3/4" x 6'11 3/4" 15'9 3/4" x 6'11 3/4" 19'9 3/4" x 6'11 3/4" 11'11" x 6'11 3/4" 15'11" x 6'11 3/4"







This new floor frame saves labor and lumber

In a typical 26'x44' crawlspace house, this system saves 14 man hours and 793 board feet of lumber for Kingsberry Homes (Ft Payne, Ala.), its designer.

Key to the new system is a new double-girder (shaded on drawing).

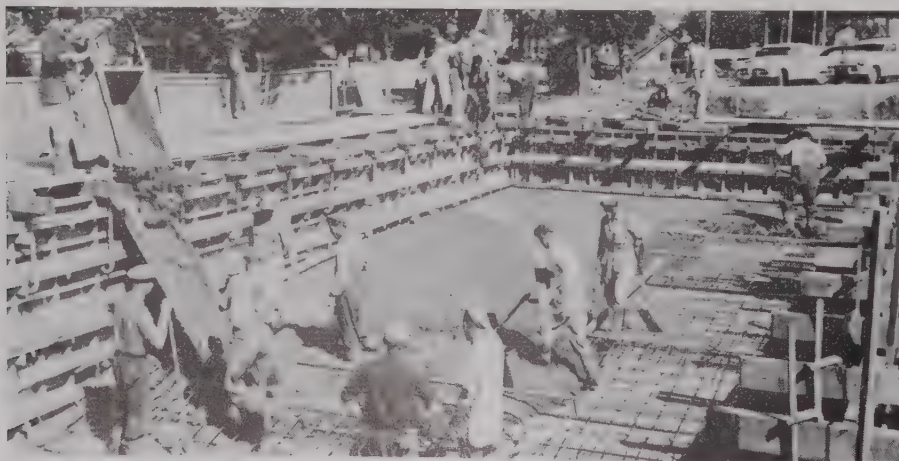
In its old system, Kingsberry used a single triple-2x8 girder resting on piers at 8' centers and running down the center line of its house. 2x10 joists were notched into the girder, spanned nearly 13' to the outside wall.

The new system uses two of the double girders, again supported by piers at 8' centers, running the length of the

house. Because two girders are used, spans are reduced to 7' 7 3/4". So 2x6 instead of 2x10 joists can be used, and bridging between joists is not needed.

Another saving: joists need no notching. In the new system, the ends of the joists rest on 2x2 ledger strips nailed to the girders.

The girders (including cross pieces, 2x2 ledger strips, and 1x4 nailing strips) are nailed up (no glue is used) in Kingsberry's plant. Installing girders and joists takes 14 man hours for a 26'x44' house. Floor frame system exceeds MPS design strength by 137%.



New admixture cuts swimming pool costs

A 14-man crew cast the 25'x75' pool shown above in only seven hours. The job took so few man-hours because the sides were poured as soon as the bottom was screeded (normally, the bottom of a pool must set two days before sidewalls are poured). The reason the pool could be cast all at once is an admixture ("Plasticrete," Sika Chemical

Corp, Passaic, N.J.) originally developed for dam building.

The admixture cuts down on the water needed, so the concrete is stiff and does not run out under the bottom of sidewall forms into the still-wet floor. And it retards setting time to give a good bond between floor and wall pours.

Standards for perimeter ducts have been revised

New material in the National Warm Air Heating & Air Conditioning Assn's Manual No. 4 establishes three new recommended standards for design and installation of warm-air ducts used in slabs.

1. The new standard classifies duct in five types:

Type 1. Duct that floats, is subject to corrosion by concrete, is non-combustible. Example: galvanized sheet metal.

Type 2. Duct that floats, is not subject to corrosion by concrete, is non-combustible. Example: stainless steel.

Type 3. Duct that floats, is subject to moisture absorption, is combustible. Example: laminated paper or other organic fiber.

Type 4. Duct that will not corrode or float, is non-combustible, but will absorb moisture. Examples: ceramic pipe which is non-glazed and/or unvitri-fied, and concrete pipe.

Type 5. Duct that will not corrode, float, or absorb moisture, and is non-combustible. Examples: asbestos-cement pipe, ceramic pipe which is both vitrified and glazed.

2. The new standard establishes these minimums for concrete thickness around ducts:

Above duct—2 1/2" for all types. On sides and bottom—2" for all types except type 5, which need not be totally encased.

3. The new standard establishes these other requirements:

Strength of all types, except type 3 should be the equivalent of 26-gauge round steel duct 8" in diameter. Type 3 ducts "should meet requirements of FHA, and should not be used within 2' of the furnace, supply plenum, vertical riser or receptor."

For a copy of Manual No. 4, write the Association, 640 Engineers Bldg, Cleveland 14. Price: \$1.75.

Vermiculite fill for cavity walls gets SCPI approval

After eight months of testing, Structural Clay Products Institute has approved a water-repellent vermiculite for insulating a block or brick cavity wall.

Since it costs only around 10¢ a sq ft (usual insulation for this type of wall can cost up to 30¢ a sq ft), the new vermiculite fill could save \$300 in a 32'x48' house with 1,500 sq ft of exterior cavity wall.

In one test a masonry cavity wall—deliberately built to leak—was filled with 2 1/2" of water-repellent vermiculite. For six days water was driven against the wall by a simulated 50 to 75 mph gale. Reports SCPI: no water permeated across the cavity space.

Practical PLUS feature for your homes



**Purifies Kitchen Air...
Without Vents or Ducts!**

Now you can offer prospective home buyers the comforting assurance of completely, permanently grease-and-odor-free kitchens... without any of the problems and expense of duct type installations!

A completely *new* kind of kitchen hood, the NAUTILUS uses a special Activated Charcoal Filter (plus a grease filter)—that removes all odors and contaminants—re-circulates clean, pure air! It's the same principle that enabled the atomic submarine NAUTILUS to stay under water two months without new supplies of fresh air!

Easily, quickly installed *anywhere* in the kitchen of your

*Patent Pending

sample home, the NAUTILUS HOOD fits any layout—and, because it requires no costly, space-wasting ductwork or outside vents—costs less than other units!

- Eliminates cooking fumes, odors, grease and smoke. Even strong odors like fish and cabbage disappear!
- Modern design—quiet operation! Handy push-button controls operate fan and enclosed fluorescent light!
- Complete range of sizes and finishes.

Free Promotional Material Available!

Get all the facts mail coupon today!

MAJOR INDUSTRIES, INC.		HH-81
505 North LaSalle Street, Chicago 10, Illinois		
PLEASE RUSH ME FULL INFORMATION ON THE FABULOUS NEW NAUTILUS NO-DUCT HOOD!		
Name	_____	
Position	_____	
Firm	_____	
Address	_____	
City	Zone	State

Schlage Lock Beauty

HELPS SELL YOUR CUSTOMERS.... AND



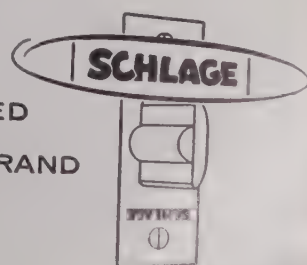
Schlage Lock Quality

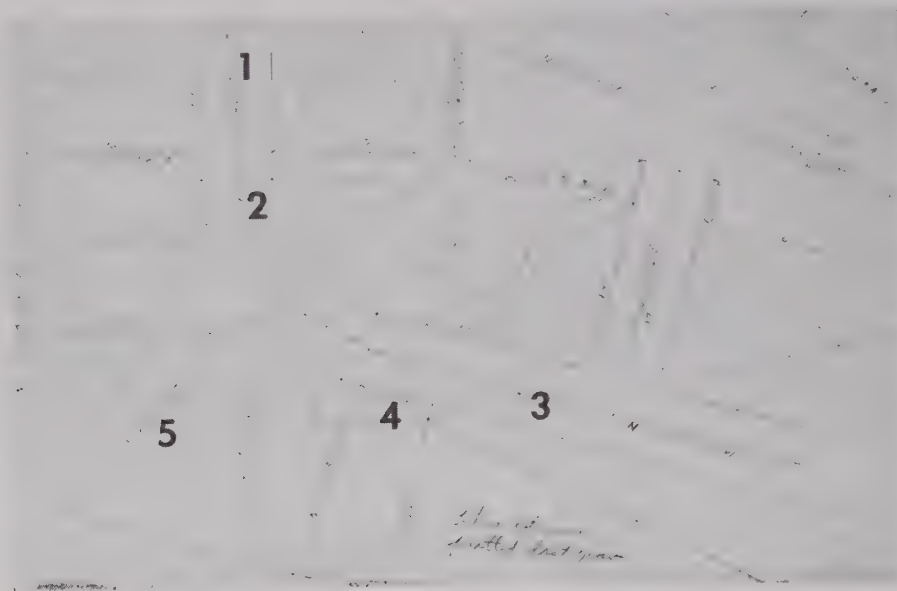
KEEPS THEM SOLD



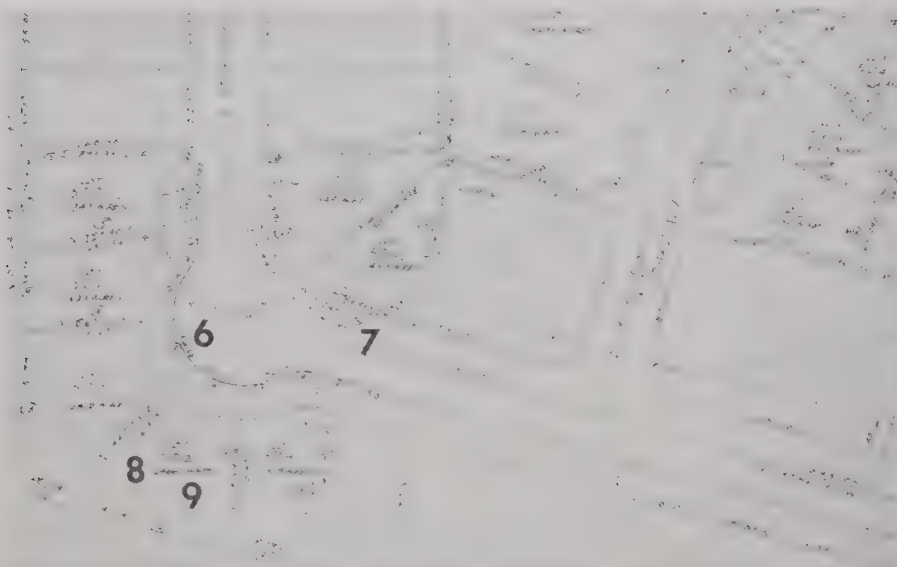
IN THESE DAYS when quality materials and superior design give you a definite competitive advantage, Schlage gives you two good reasons for using Schlage locks throughout. First, they are the jewels of home... their beauty immediately brings a favorable reaction at the front door. And a wide range of designs enables you to complement any building style. Second, Schlage products are unequalled in their fields; Schlage pioneered the cylindrical lock and remains the incomparable leader. For custom builders or large-scale developers, Schlage quality means easier installation, longer wear, greater customer satisfaction and virtually no callbacks. Schlage quality saves money in the end. Talk over your requirements with your nearest Schlage representative...or write P.O. Box 3324, San Francisco 19, California.

AMERICA'S
MOST DISTINGUISHED
LOCK BRAND





From a rough plan like this, you can get . . .



a finished plat survey like this—overnight

Starting with a rough plan, it can take a whole crew of engineers and clerks several days to figure lot dimensions, line bearings, and exact lots areas—particularly since more and more tracts are laid out with curvilinear streets.

But starting with the same rough plan, an electronic computer can do all the complex calculations needed to plat a whole subdivision in a matter of minutes. And by using a new service of Photronix, Inc (Columbus, Ohio), you can have your tract layout done by computer.

Cost (for regular 4-day service) is about 20¢ per lot line (common lines are counted only once) or only around \$25 for a subdivision of 40 lots.

Here is how the service works

The builder submits a rough subdivision map (top drawing above) on

which are marked: **1** the exact bearing of street center lines, **2** either radii or lengths of center line curves, **3** the lengths of enough street center lines so there are only two unknowns in the polygons formed by streets and the subdivision perimeter, **4** the lengths of lot frontages except for those paralleling street center lines that are unknown, and **5** either the bearings of lot side lines or the length of lot rear lines.

At this point in the layout of a tract, the calculations become difficult, and it is at this point that the computer can take over. First, punch cards for the computer are prepared from the information given on the rough map. The computer can then solve for (see lower drawing above): **6** curved-lot front lengths, **7** complete street-center-line traverses, **8** missing lot lengths (so lots close mathematically), and **9** exact lot areas.

New building report covers many subjects

Penn State's *Better Building Report No. 2* is a compilation of papers presented at the Small Builders School (at Penn State, March 5-6), includes material on record keeping and production scheduling, moisture and vapor control, components, plumbing, heating, and insulation. (*Better Building Report No. 1* was a single-subject report on slab-on-ground and gradebeam construction; see H&H May, p 238.)

A highlight of report No. 2 is this "case for adequate insulation:"

"For a single-story house in northern Pennsylvania, enclosing 1,200 sq ft of floor area, with U values of 0.25 for the walls and 0.36 for the ceilings, the heating plant must have a capacity of 105,000 Btu per hour. First cost of the plant would be about \$400, installation about \$105, and yearly operating costs about \$290.

"If the same house were insulated at the time of construction to provide walls of 0.06 U value and a ceiling of 0.07, the heating plant could be reduced to 60,000 Btu per hour. First cost would drop to \$320, and installation to \$80. The yearly operating cost would be \$160. This would provide savings of \$105 in first cost and installation, and \$130 annually in operating cost. If the installed cost of the insulation is \$300, its cost will be amortized in less than two years."

For a copy, write Penn State, University Park, Pa. Price: \$1.

Research project to study fire ratings of plastics

The Manufacturing Chemists Assn has just set up a one-year project at Southwest Research Institute, San Antonio. Purpose of the project: to establish fire-safety factory of plastics used in building, relate the fire resistance of plastics to building codes. MCA hopes that the results will encourage a much broader use of plastics in building.

Plans for a one-story house will be studied to see where plastics might be used; then where these plastic elements might present a hazard and the extent of that hazard.

Flat panel light now comes in colors

Electroluminescence, the light produced by passing current through flat panels of phosphor-coated plate glass, now comes in six colors. It used to come only in shades of blue or green.

RCA has announced development of panels that give good brightness in yellows, deep blue, white, and red.

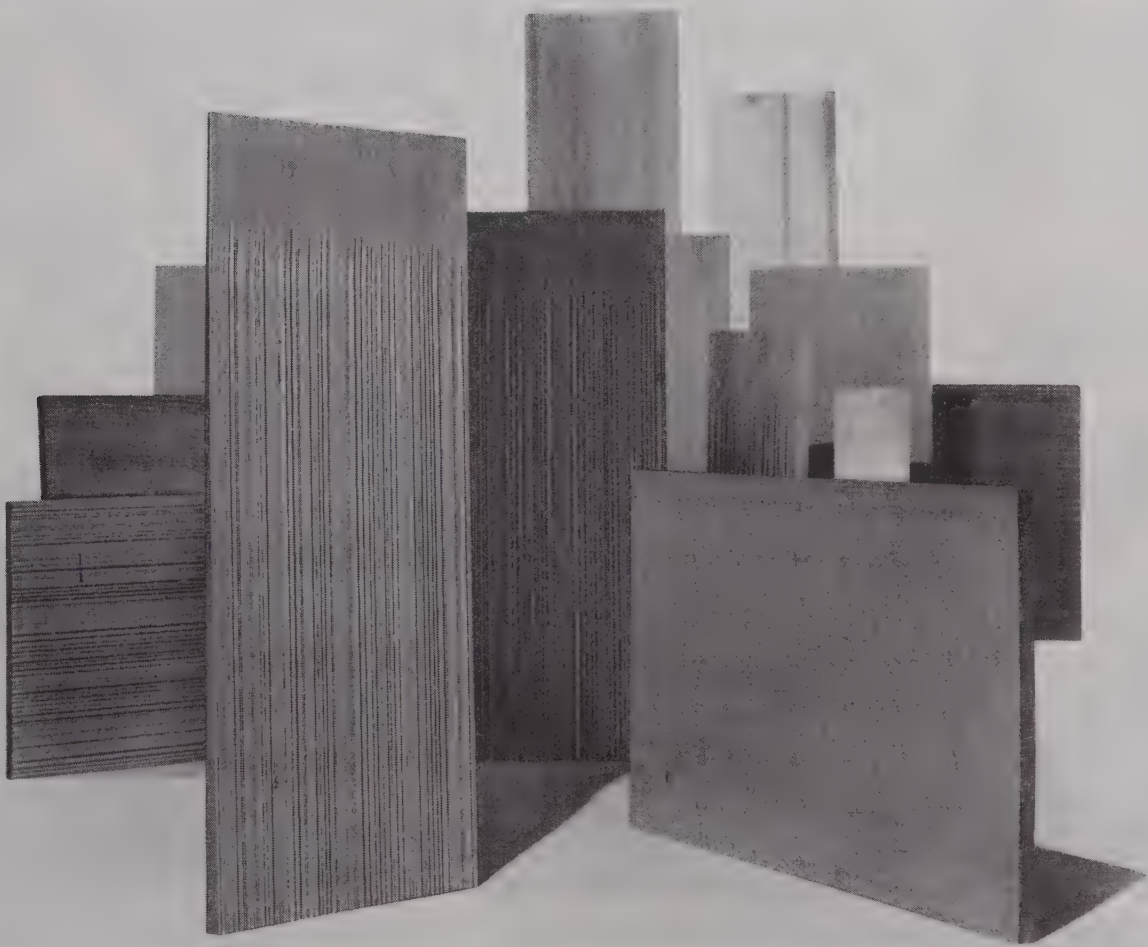
Because costs are still high, electroluminescence is still limited to experimental units like Westinghouse's full-size wall panel that lights on a 110-volt circuit. /END

the three dimensions of cedar

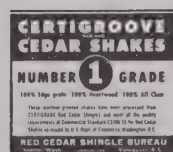
Cedar gives you thickness that tells prospects your homes are built to last. It gives you texture that dramatically shows your awareness of good taste in exterior finishing. And, it gives you visible quality that is unmistakable.

Whether featured on roofs, on walls, or in tasteful combination... red cedar shingles and machine-grooved cedar shakes provide a range of design possibilities unmatched by other exterior materials.

Let the thickness, the texture, the natural quality of cedar shingles and shakes add new dimension to your home-selling program.



For application details, see your current Sweet's File...or write...
RED CEDAR SHINGLE BUREAU
5510 White Building, Seattle 1, Washington
550 Burrard Street, Vancouver 1, B. C.





NOW

in plain sight... proof that you've used *Thermopane*[®]

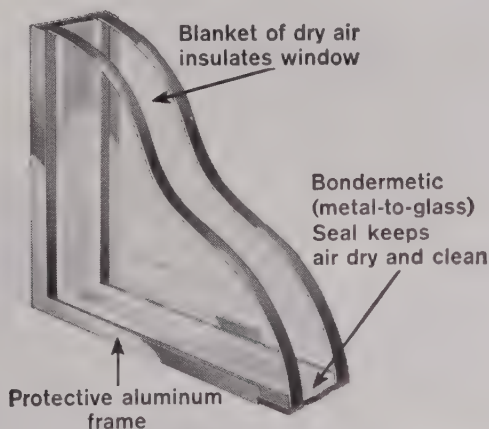
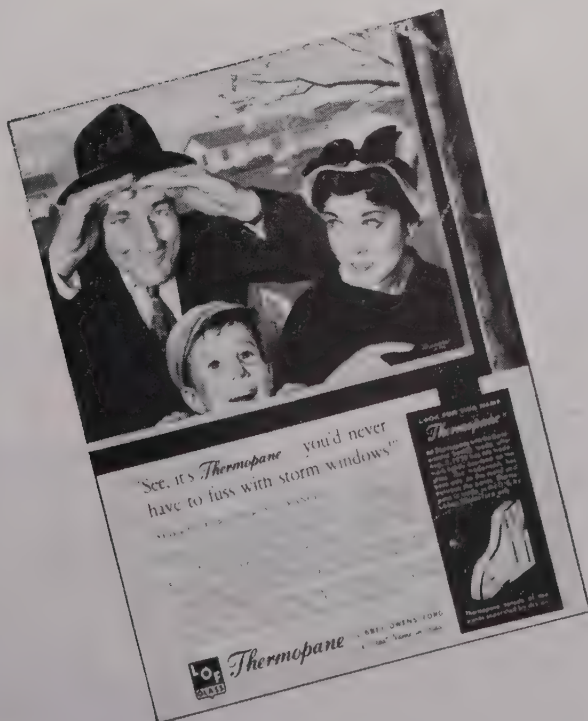
PROOF that you've used the finest insulating glass made. PROOF that you're offering more comfortable living . . . all year 'round. PROOF that your homes will be cheaper to heat and air condition.

Because all *Thermopane* manufactured since August 3, 1959, has the name delicately inscribed right on the glass where prospects can see it.

There's no better way to merchandise houses than to feature the quality, nationally advertised materials used in them. Now, more than ever, *Thermopane* insulating glass helps you do just that! And it's the *only* insulating glass in the world that's permanently trade-marked.

Thermopane is the original insulating glass, made since 1937, and nationally advertised for 16 years. It was the first insulating glass to be featured on television networks. This year *Thermopane* again will be heavily promoted on television and with ads (like the one below) in consumer magazines telling people to "look for the name on the glass, it's the mark of a quality home".

NOTE: *Thermopane* units with the *Bondermetic Seal*[®] have long been trade-marked on the metal-to-glass seal between the panes. You will continue to get such units until stocks are exhausted, but in a short time Libbey-Owens-Ford distributors will be supplying units with the trade-mark also inscribed directly on the glass.



Thermopane

INSULATING GLASS

Made in the U. S. A. by
LIBBEY • OWENS • FORD only
TOLEDO 3, OHIO



Doyle Downey, President.
Carlos Garcia, Sales Manager.
Their ideas have built a
success that has made history
in Texas building operations.



200-homes-a-month the Fedders

NOW! THE MOST AMAZING HOME VALUE
EVER OFFERED!



The fabulous El Dorado, featuring 3 bedrooms, combination kitchen and dining room, big bath, over-sized living room, built-in natural brick kitchen cabinets and many exclusive Downey features PLUS central air-conditioning and central heating by FEDDERS for only \$9995 complete, is now on display at the Downey Brothers sales lot! Come out and see it today at 4385 Port Arthur Road!

THE FABULOUS EL DORADO BRICK HOME

CENTRALLY AIR-CONDITIONED
and **CENTRALLY HEATED**

For Year-Round Comfort

NOW AT A MIRACULOUSLY LOW PRICE OF ONLY ...

FEDDERS

HEAT PUMP YEAR ROUND CENTRAL
HEATING AND AIR CONDITIONING

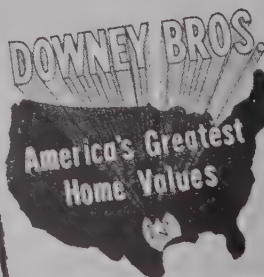
Wonderful Climate Machine that Cools in Summer . . . Heats in Winter
-- automatically.

The World's Most Versatile, Most Economical All-Through-The-House, All-Through-The-Year Comfort Appliance.

How proud you will be to live in your Downey summer-and-winter FEDDERS air-conditioned home with windows and doors closed to outdoor dust and dirt, with indoor air filtered and re-filtered over fresh and bright, sparkling clean. And safe because there's no flame, no soot, no fumes to discolor walls and draperies, you'll have lower cleaning and redecorating bills that can add up to big savings over the years.

Revolutionary FEDDERS year-round Heat Pump Air Conditioner automatically heats in winter, cools in summer . . . cleanest heating system available—no flames, no fumes, no noise, healthful, fewer controls, completely safe, protects your new home against obsolescence . . . maintains value.

Eliminate the middle man - deal



Yes, this is another example of why Downey Brothers, week after week, gives you "America's Greatest Home Values!" Here's an opportunity too good to miss! . . . a 3-bedroom home in brick, centrally air-conditioned and centrally heated for year-round comfort by FEDDERS. Come out to Downey Brothers now and see the many models on display. Somewhere among "America's Greatest Home Values" is the home for YOU. There's a no-down-payment home with payments less than rent waiting for you and your family. Don't delay — come out today!

BEAUMONT
4385 Port Arthur Road
2330 Highway 90
HOUSTON
6925 Gulf Freeway

Newspaper ads bring crowds to
Downey Brothers Model Home Displays in
Houston and Beaumont.



Texas builder features Adaptomatic Heat Pump as biggest buyer appeal

**Downey Brothers makes year 'round heating and cooling
dominant sales appeal to Beaumont and Houston home buyers**

Even top-quality construction and rock-bottom prices are no guarantee of maximum volume and profits for home builders these days. That's why Downey Brothers, leading builders in Beaumont and Houston, Texas, uses the merchandising magic of the Fedders Adaptomatic Heat Pump in their newspaper advertising and model home displays.

This unique organization, which is moving toward a 3000-home sales record this year, operates its own lumber yards to pre-fab major home components . . . buys in multi-carload lots . . . handles its own financing . . . maintains a full time staff of 430 . . . displays 18 model homes on three sites. These economic advantages enable them to offer their homes at prices the average worker can afford.

But because Downey Brothers homes have always stressed quality as well as attractive prices—and because year 'round Heat Pump air conditioning is the sure sign of a quality home—the Fedders Adaptomatic Heat Pump is now standard equipment in several Downey models.

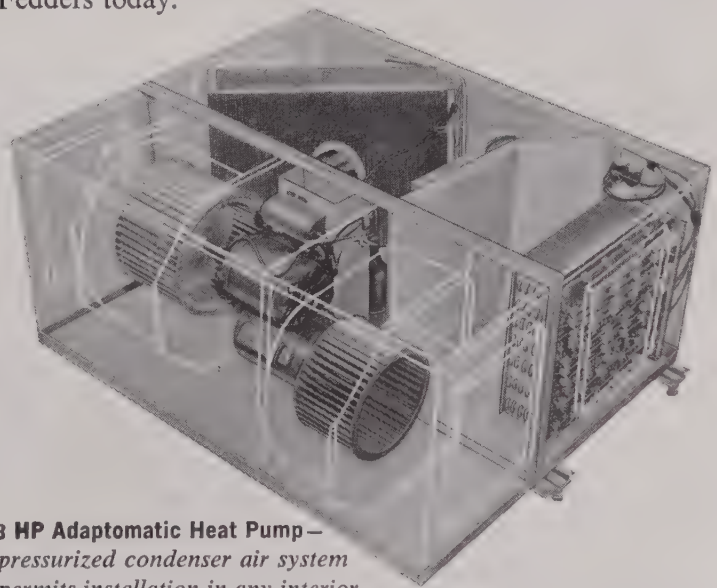
These Fedders-equipped models carry the entire merchandising burden of this 3000-home operation.

Carlos Garcia, sales manager, tells how the Adaptomatic Heat Pump is working for Downey Brothers:

"The results have been remarkable, not only in the performance of the heat pumps, but also in the buyer appeal of the price at which we can sell a fully air conditioned home."

No matter what you are building or where, you can offer this same dramatic sales feature in *your* homes. The cost will be little more than what you would spend for a good heating system alone—but you will add more than a thousand dollars of *extra* value and *extra* sales appeal to every home you build.

Special Plan For Development Builders. This unusual program lets you test the sales power of the Adaptomatic Heat Pump in model homes at extremely low cost. Call your wholesale distributor or mail the coupon direct to Fedders today.



3 HP Adaptomatic Heat Pump—
*pressurized condenser air system
permits installation in any interior
location in existing plans. Measures only
44½" x 37½" x 21¾".*

FEDDERS

Adaptomatic

HEAT PUMP

AIR CONDITIONER

FEDDERS CORPORATION — Dept. HH-89
Maspeth 78, New York

Gentlemen: Please send me, without obligation, complete information on your Adaptomatic Heat Pump model home plan.

PLEASE PRINT

NAME.....

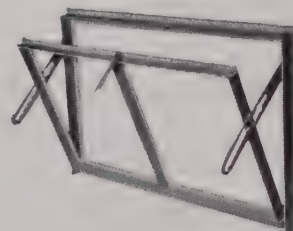
STREET ADDRESS.....

CITY.....STATE.....

MAKE *EXTRA PROFIT*
ON NEW AND REMODELED HOMES
WITH DONLEY BASEMENT DOORS
AND WINDOWS



It's more than a basement, it's a truly useful *extra room* that really appeals to home buyers . . . when you install the popular Donley Basement Door! Tricycles, trash, friends and frisky children can be routed directly to the outside through a convenient Donley Basement Door . . . an extra sales feature that means extra profits for you! This new stepsaver is equipped with a torsion bar spring for easy fingertip control. It opens at a touch from inside or out . . . stays securely open . . . locks from the inside. Other features include rigid 12-gauge steel construction, weathertight flanges and threshold. Shipped with sides detached for easy job-assembly, this standard-size unit is quickly installed in new or remodeled homes.



DONLEY BASEMENT WINDOW

Accurately welded and factory fitted for tight closure, this unit features adjustable ventilator stops, positive locking device. Available in three standard sizes; putty or puttyless.



DONLEY UTILITY WINDOW

This popular unit is ideal for shops, garages, storerooms and similar applications. Operating features and construction same as described above. Wall opening 32" x 42 $\frac{3}{4}$ ".

THE DONLEY BROTHERS COMPANY

13981 Miles Avenue • Cleveland 5, Ohio

Please send me complete information on the items checked below:

- ☐ BASEMENT DOORS ☐ BASEMENT WINDOWS
☐ UTILITY WINDOWS

NAME _____

COMPANY _____

ADDRESS _____

CITY _____ ZONE _____ STATE _____

Donley
BROTHERS

THE DONLEY BROTHERS COMPANY



700-ACRE MARSHLAND TRACT is being built up with fill from mountain in foreground. A 72-acre lake will form at right.

Here is Hawaii's fastest selling tract

Builder Joseph R. Pao sold \$7 million worth of houses on this Honolulu site within 48 hours after he opened it in mid-June.

Buyers snapped up the first 373 units offered in the biggest homebuying spree in Hawaii's history. At left below is part of the crowd of 20,000 who turned out to see the four furnished models offered at \$16,950 to \$19,100. (Since the houses are on leased land, prices do not include lot cost. Buyers pay \$175 a year ground rent.)

All models have three bedrooms, two baths, carpets, built-in ranges, ovens, dishwashers, and garbage disposers.

"Another feature buyers like," says Pao's partner James Holmans, a former Centex official, "is sewerage instead of septic tanks. We read about sewage lagoons in *HOUSE & HOME* and got Hawaii health authorities interested. They went to the mainland to study them, came back and approved ours. The lagoons will serve until sewer lines are built out from the city in two years."

What the leaders are doing

Frank Lloyd Wright's design for a two-story prefab.....p 176

Huber's first Florida model had Mrs America's help.....p 180

French helps sell houses for a Pittsburgh builder.....p 182



OPENING DAY CROWD of 20,000 included hundreds who visited Pao's sales office.



OPEN BEAM CEILINGS and single-wall construction are popular with Hawaiian buyers.

"STRONG-

NEW CELOTEX

REG. U. S. PAT. OFF.

INSULATING SHEATHING WITH SUPER NAIL-HOLDING POWER!

FOR DIRECT NAILING OF WOOD OR ASBESTOS SHINGLES

*Now... Celotex gives you
the industry's most
complete sheathing line!*



A Type for Every Requirement . . . for Every Building Budget!

FINEST!

CELOTEX 25/32" INSULATING SHEATHING

- Indicates "top quality construction throughout"
- Thickest, maximum insulation value, superior structural strength
- Double-Waterproofed (asphalt coated) or Asphalt-Impregnated
- Big Board (4' x 8' or 9'; square edges). Center-Matched (2' x 8')

THRIFT LEADER!

CELOTEX 1/2" INSULATING SHEATHING

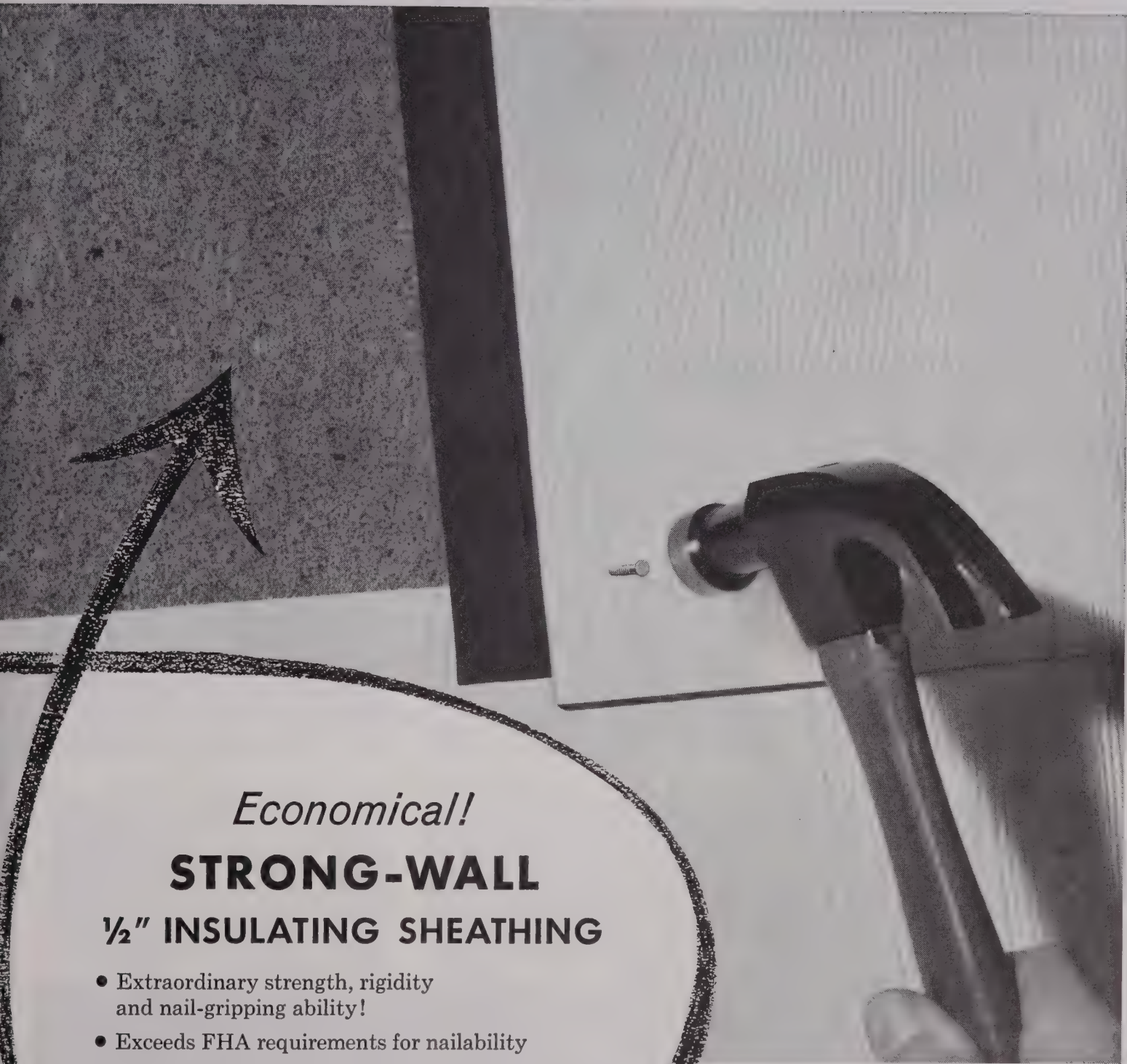
- Surpasses other sheathing materials in insulating efficiency
- Handles extra "easy," with dependable strength, durability
- Double-Waterproofed (asphalt coated) or Asphalt-Impregnated
- Big Board (4' x 8' or 9'; square edges). Center-Matched (2' x 8')

Treated during manufacture for protection against termite and dry rot attack.

YOUR CELOTEX BUILDING PRODUCTS DEALER INVENTORIES THESE SHEATHINGS. CALL HIM TODAY!

WALL"

TRADE MARK



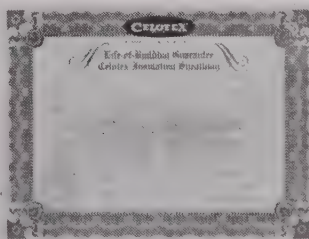
Economical!

STRONG-WALL

½" INSULATING SHEATHING

- Extraordinary strength, rigidity and nail-gripping ability!
- Exceeds FHA requirements for nailability
- Exceeds FHA requirements when applied vertically without corner bracing. Cuts cost!
- Asphalt treated integrally
- BIG BOARD (4' x 8' or 9'; square edges)

Plus... "Life-of-Building" Guarantee



With Celotex Insulating Sheathing, you get this "Life-of-Building" guarantee to give every buyer. Indicates quality building throughout . . . helps sell more homes, faster. Also, attractive folders with your name imprinted, free. Write for sample copies.

THE CELOTEX CORPORATION • 120 SOUTH LASALLE STREET • CHICAGO 3, ILLINOIS



TWO-STORY LIVING ROOM is open to upstairs "gallery bedrooms" which have folding 4'-high panels above waist-high walls.

FLLW designed this big "one-space" prefab

It is almost a one-room house. Nearly every room—both upstairs and down—borrows space from the living room. The first model drew record crowds in late June to the Madison, Wis. Parade of Homes.

Frank Lloyd Wright used a variety of devices to give a feeling of unending space within four walls. All upstairs rooms can

be opened on the 20'x24' two-story living room. The first floor master bedroom is the only "closed space," yet even it has an open shaft disappearing up to a room above.

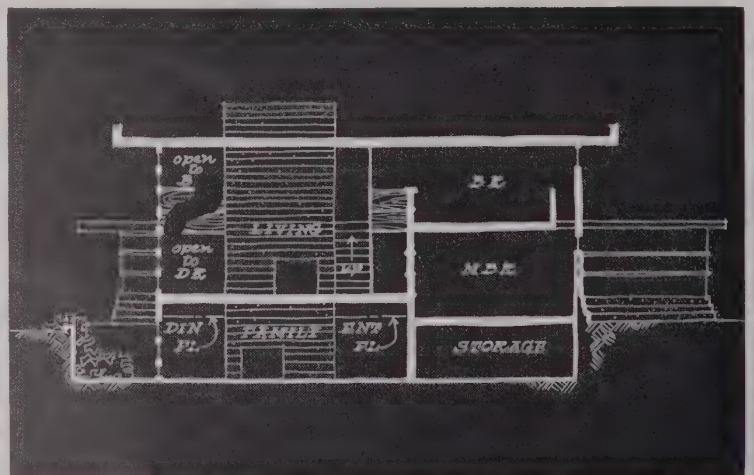
Marshall Erdman & Associates has produced the prefab on a 2'x4' module to sell for \$28,000 to \$35,000 plus lot. The higher price includes specially designed furniture,

built-in appliances, and a basement level with family room facing a sunken garden.

The prefab is one of three designed for Erdman by the great architect. The first was in the \$40,000 to \$60,000 range (H&H, Dec '56 p 117). The third, now being engineered for production, will probably be priced at \$15,000 to \$20,000.



NEARLY SQUARE HOUSE is 18' high, has band of windows around house under 2' ornamental fascia. Cream ocher walls have blue battens.



SECTIONAL VIEW shows four levels. The 14'-high living room is 2' above level of foyer, dining-kitchen area, and first-floor master bedroom.



GUEST ROOM-STUDY, with door folded back, opens on upstairs gallery. View is from stairway.

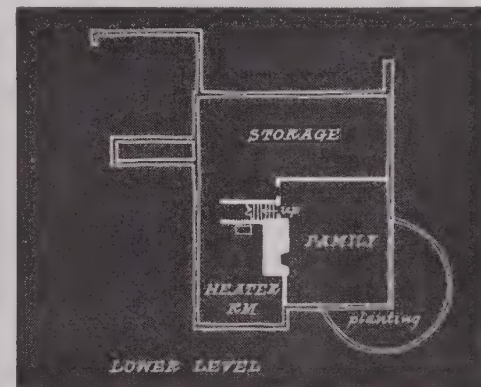
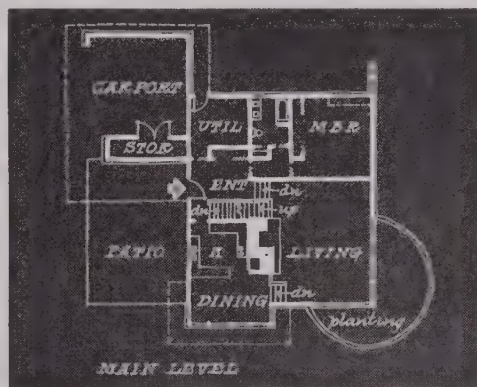
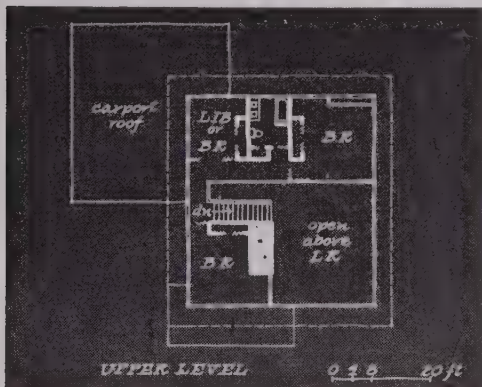


BEDROOM overlooks living room. This is reverse of view shown at top of opposite page.



VIEW FROM BALCONY shows how second floor areas open on each other and to living room

below. Decorative poles line staircase, at right out of photo. One bedroom is off gallery to the right.



LIVING ROOM is open at left of fireplace to bedroom above dining room out beyond the planter.



DINING ROOM, down four steps from living room, has Wright-designed furniture. Kitchen is at left.



ENTRANCE FOYER has steps up to living room. Hall at left leads to bath and master bedroom.



Sell the hidden strength of *Reinforced* concrete... Clinton Welded Wire Fabric

Builders know that the giant steelman stands for the dependability of the steel products which CF&I has developed for the home construction industry. One of them—Clinton Welded Wire Fabric—adds unseen, *extra* strength and durability to concrete jobs. It's ideal for:

- ① barbecue foundations ② swimming pools ③ porches
- ④ steps ⑤ patios ⑥ basements
- ⑦ walks ⑧ garage floors ⑨ driveways

Clinton Welded Wire Fabric is available in a wide range of gages and mesh sizes. It's easy to use... it is flexible... can be cut with ordinary wire cutters... and can be shaped on each job site. This quality wire mesh unrolls flat and stays flat for quick installation. The minimum maintenance of reinforced concrete will increase your reputation as a quality builder.

For fast delivery and complete information, call the nearby CF&I sales office.

when they ask...

"is it Reinforced"

say yes...with

CLINTON
WELDED WIRE FABRIC
THE COLORADO FUEL AND IRON CORPORATION



In the West: THE COLORADO FUEL AND IRON CORPORATION—Albuquerque • Amarillo • Billings • Boise • Butte • Denver • El Paso • Farmington (N. M.) • Ft. Worth • Houston • Kansas City • Lincoln • Los Angeles • Oakland • Oklahoma City • Phoenix • Portland • Pueblo • Salt Lake City • San Francisco • San Leandro • Seattle • Spokane • Wichita
In the East: WICKWIRE SPENCER STEEL DIVISION—Atlanta • Boston • Buffalo • Chicago • Detroit • New Orleans • New York • Philadelphia
CF&I OFFICE IN CANADA: Montreal • CANADIAN REPRESENTATIVES AT: Calgary • Edmonton • Vancouver • Winnipeg

7160



Why poor Henry never got rich

(when he could've)

Henry was a builder. Good one, too. Knew building business inside and out. Had a good crew of men.

Henry put up a model house. Quality workmanship cellar to attic. "No trouble selling this and plenty more like it," mused Henry. "Heck of a lot for the money!"

Came opening day. With it hordes of people. "Ah-h-h-h!" sighed Henry. "Really in business now."

Sad as it is to report, Henry *wasn't* in business at all. Good as traffic was, Henry couldn't get anybody—any-

where near the dotted line. "What have I left undone?" wailed Henry. "Where did I go wrong?"

Nobody told him and he never found out. But you, dear reader, for reading this far, certainly deserve to know where Henry goofed.

Poor Henry hadn't included one, single, nationally-advertised Brand Name—*anywhere* in his house. Roofing was by -----, Inc. Siding by ---- Co. Even the door latches were a product of the Brothers -----.

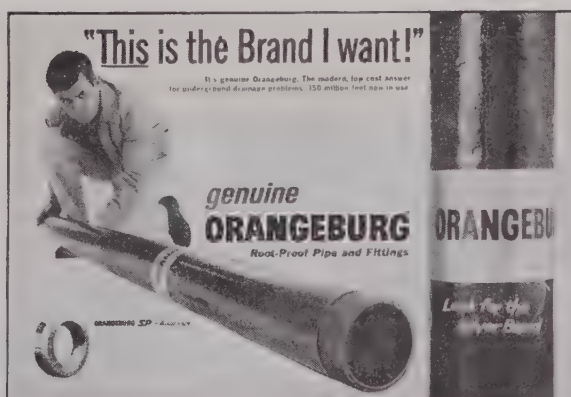
We say Brand Names *are* important!

Selling shoes or shirts. Hammers or houses. Brand Names give assurance of quality. Carry weight. Impress people. Provide something to point to with pride. Most important to you—Brand Names help sell more houses—and sell 'em faster. Ask any builder who uses them.

Now the \$64 question. Why be like poor Henry and build houses with unknown materials? Are the pennies you save (if you do) worth it? Why not use nationally-advertised Brand Names (like Orangeburg and Flintkote) and end up successful!

*THE NAME ORANGEBURG AND THE SILVER BAND ARE REGISTERED TRADE-MARKS OF THE ORANGEBURG MANUFACTURING CO.

This message is presented by Orangeburg Manufacturing Co., the folks who practically invented Brand Name selling in pipe. Be sure your homes feature genuine Orangeburg—the Brand with the Silver Band. Root-Proof Pipe and Fittings for house sewer lines, downspout run-offs... Perforated Pipe for foundation drains, septic tank filter beds. Orangeburg Manufacturing Co., Orangeburg, N.Y., Newark, Calif. A Division of The Flintkote Company, Manufacturers of America's Broadest Line of Building Products.*



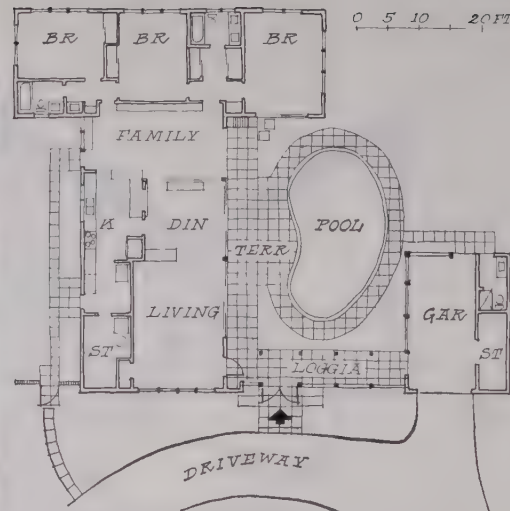
Secret of Success Make a product of unquestionable quality and advertise that fact nationally year-after-year. The Orangeburg ad above, one of a continuing series, appears in LIFE, Sept. 14, reaching an estimated audience of 32 million. **LIFE**



Mrs America helped design this Florida house

The 49 candidates for "Mrs America" all suggested ideas for this model that opens Huber Homes' big new tract in Fort Lauderdale, Fla. Architect James K. Pownall used many of the ideas in his design of the

1,800 sq ft model, which will stay open a year. It can be duplicated for about \$25,000 plus lot. Huber and 27 other builders will get Mrs America publicity help by arrangement with Johns-Manville. J-M sponsors



Mrs America visits to builders who tie in with its 7-star product promotion (and pay \$100 per Mrs America visit). This year 437 builders have joined in the promotion.



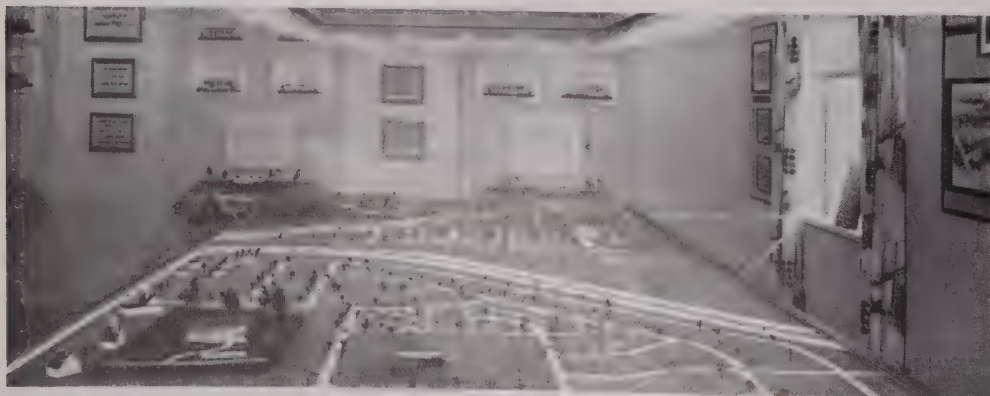
Extra advertising

Centennial Construction Co in Dallas gets its Enchanted Village tract name imprinted free on NuWood sheathing by ordering material by the carload.



Damage prevention

Cabinet doors are reversed in unfinished Eichler Homes houses in Palo Alto, Calif. to protect the fleck-painted, kitchen cabinet surfaces until houses are completed.



Here is a push-button community mock-up

Buyers who wander into this sales office in Ypsilanti, Mich. get a lot of fun pushing buttons and watching lights light up. Push a "school" or "church" button and see where

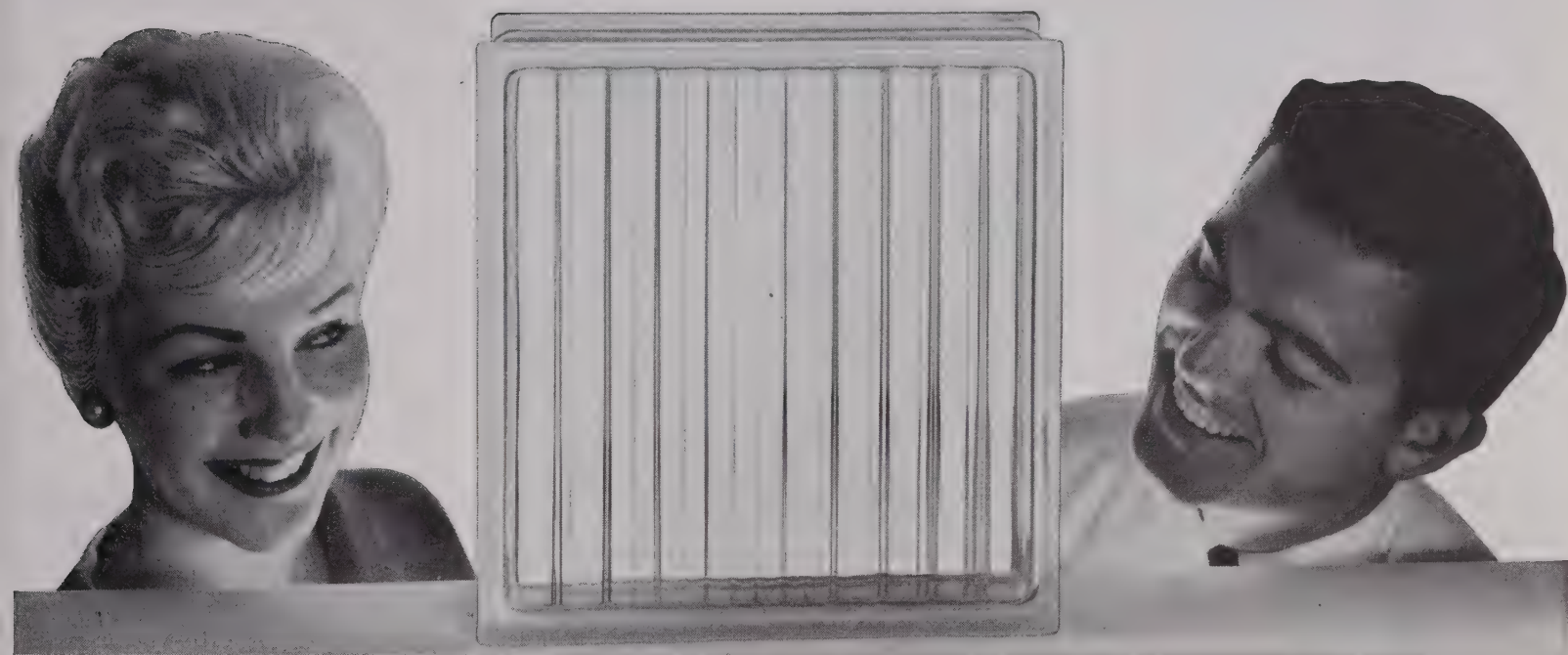
it is and so on. Macway Home Builders say exact scale models of the tract and of individual houses (two are shown on tables in background) help sales considerably.



A new high in publicity

Robert Seabury, biggest homebuilder in Wichita Falls, Tex. for the past two years, now has the biggest sign in town. The 75' tower on his 91-unit Sun Valley tract has a platform at the top where a local disc jockey broadcasts from afternoon until late in the night. Lights at the top of the tower attract attention all over town to Seabury's \$11,500 houses which feature extensive use of aluminum inside and out.

Second-Time Home Buyers know quality when they see it...



and they can see quality in PC Glass Block Panels

Conditioned by experience, second-time home buyers take a long careful look at the materials that go into a house. That kind of study makes them likely to appreciate the values added to a home by light, bright, easy-to-care-for panels of PC Glass Blocks. Consider, for instance, the ways a PC Glass Block panel makes any well-designed home prettier, gayer, lighter, more private, easier to care for.

Soft, diffused daylight—cheerful, glareless daylight fills dark rooms and corners . . . enriches color schemes.

Privacy—patterns protect privacy without sacrificing daylight. And undesirable outside views can be screened.

Distinctive good looks—clean, functional lines, and the glowing beauty of glass add style to contemporary or traditional designs.

More comfort—insulation value (equal to a 12" thick concrete block wall) keeps cold out, warmth in. No need for

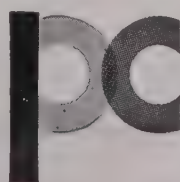
storm windows. Lower operating costs for air conditioning, too.

No maintenance—because PC Glass Blocks are mortared into panels, there's nothing to rust, rot, or paint. They're easy to clean: inside with a damp rag; outside with a hose.

Quality like this makes real sense to the second-time buyer. He's sure to appreciate the added values of a panel of PC Glass Blocks . . . used to divide a room or open an outer wall to cheery, muted daylight. And now even greater sales appeal is possible with color. PC Glass Blocks are available on architects' specifications in 12 ceramic face colors in 6-inch squares, 8-inch squares and in the new 4 x 12 rectangular glass block.

You'll find PC Glass Block ideas for every room in the house in our new booklet, "Ideas with a DOUBLE-TAKE Appeal." Send for your free copy. Pittsburgh Corning Corporation, Dept HH-89, One Gateway Center, Pittsburgh 22, Pa. In Canada: 3333 Cavendish Blvd., Montreal, Quebec.

P I T T S B U R G H



C O R N I N G

"...best unit by far



H-70
PAYLOADER®

for basement digging"

"This Model H-70 is the fifth 'PAYLOADER' I've owned and used for digging basements," reports Howard Bachman of Denver, Colorado. "I've found them all excellent for this type of work. Rubber tires let me work around concrete and over sidewalks, curbs, gutters and streets without harm. This you can't do with a crawler unit."

Contractor Bachman specializes in basement digging and grading for Denver homes. He completes a large basement easily in one day . . . usually digs and piles 400 cubic yards in 7 hours.

"Contractors like the basements we dig because they are more accurate. The dirt is all in one stockpile and the corners are not dug out as most crawler operators leave them . . . makes it easy for concrete trucks to get in close to pour foundations and there is less backfilling. The H-70 is the best unit by far for my work. It makes the operator's job easier and production rate much higher."

A 'PAYLOADER' is the most versatile of tractor-shovels because of its wide selection of interchangeable attachments — back hoe, side boom, black-top spreader, "4-in-1" bucket, vibratory compactor, fork lift and others.

PROVEN 'PAYLOADER' MODELS
—are available for every material handling purpose, indoors or outdoors . . . carry capacities from 2,000 to 12,000 lbs. . . and a Hough Distributor near-by to serve you.

HOUGH®



THE FRANK G. HOUGH CO.
LIBERTYVILLE, ILLINOIS
SUBSIDIARY — INTERNATIONAL HARVESTER COMPANY



THE FRANK G. HOUGH CO.
839 Sunnyside Avenue, Libertyville, Ill.

Send Bulletin No. 390 describing
the complete "PAYLOADER" line of
tractor-shovels:

8-B-7

Name _____

Title _____

Company _____

Street _____

City _____

State _____

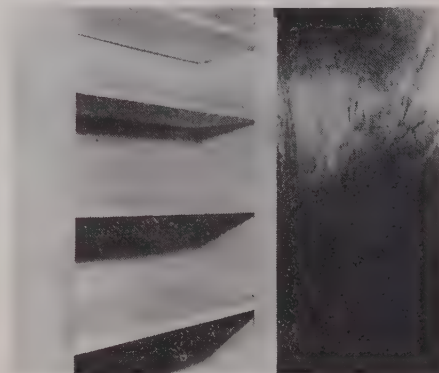
What the leaders are doing

starts on p 173



Quelle bonne idee!

French, she ees a wonderful language for selling US houses. Builder Vincent Amore in Pittsburgh reports a big sales success thanks to the special way he used French to promote his 60-unit tract. Grade-school children in local French classes were invited to submit French names for his models. Over 800 names were received, including "En Rapport," "La Vie," etc. Newspapers gave the competition much space and mentioned that children would act as hosts at houses they named. Result: Amore sold half his tract by opening day.



Linen closet shelves adjust

One way to get adjustable shelves in linen cabinets is this method used by Maryland Housing Corp in Halethorpe, Md. It puts perforated board on closet walls, hangs shelves from metal clips.



Signs with a double purpose

Many signs like the one above are spotted around Cantor & Goldman's 2,000-house tract in Madison, N.J. Two purposes are served: workmen are reminded of their responsibilities, and buyers are reminded about C&G's emphasis on quality in construction. /END



the quality... the design... sells itself

now . . . famed Scholz designs . . . anywhere in the nation

Now the famed Scholz prestige designs are available to builders in every part of the United States. In addition to special plans, specifically developed for maximum sales appeal to the peculiarities of buyer preference in each region, access is provided to all of the merchandising know-how and selling techniques developed by America's largest and most successful seller of quality homes. Call or write today: Mr. Howard Trinz, Scholz Homes Inc., 2001 N. Westwood, Toledo 7, Ohio.

SCHOLZ HOMES, INC., 2001 N. Westwood,
TOLEDO, O.

Please have your field representative call. HH8

Builder's Name _____

Address _____

City _____ Phone _____

We normally build _____ houses per yr. in the \$
to \$ _____ range.

PLANTS

east
Long Island
Durham

central
Toledo
Kansas City

south
St. Petersburg
Houston

west
Long Beach
Greeley



An Whirlpool



A Disposer that efficiently goes about its business with remarkable quiet. Grinds and flushes away corn cobs, fruit pits and bones as quickly as it does a handful of lettuce. Batch or continuous-feed types available.



A Dishwasher with an amazing new principle which eliminates pre-scrapping and rinsing. There's no other dishwasher to compare for no other has Filter-Stream* action. Easy to use as dialing a 'phone. Holds 14 NEMA place settings.

*Pat. 2,811,115

Style and design attract potential buyers, but it's the kitchen . . . "heart of the home" . . . that clinches the sale. And, when you feature a kitchen built around high-quality RCA WHIRLPOOL appliances, you'll find that homes sell faster!

Only with RCA WHIRLPOOL can you offer a complete line of kitchen appliances in either GAS or ELECTRIC. Built-in electric refrigerator-freezers . . . gas or electric free-standing refrigerator-freezers . . . built-in gas or electric cooking tops and ovens . . . free-standing gas or electric ranges . . . dishwashers . . . automatic washers . . . gas or electric dryers . . . gas or electric combination washer-dryers . . . combina-



kitchen says quality faster!


tion range-sink top . . . "Select-A-Door"* wall and base cabinets . . . air conditioners.

It's just good business for you to go right down the line with the nationally-accepted name of RCA WHIRLPOOL. To the buyer it means you've built QUALITY into the house. To you it means dealing with just one dependable supplier who is ready and eager to furnish expert planning assistance, merchandising aid, and quick delivery of the highest-quality home appliances available.

RCA WHIRLPOOL . . . America's first family of home appliances
Products of WHIRLPOOL CORPORATION St. Joseph, Michigan

Get the complete story! Send coupon TODAY!

Contract Sales Division, Whirlpool Corporation, St. Joseph, Michigan		HH 8-
Please send me information on RCA WHIRLPOOL kitchens and appliances.		
Name _____	Title _____	
Firm Name _____		
Firm Address _____		
City _____	Zone _____	
County _____	State _____	

Use of trademarks  and RCA authorized by trademark owner Radio Corporation of America

Sell the kitchen and you sell the whole house!

**Low cost; top brand name;
79 popular patterns; easy owner
care — Armstrong Excelon Tile**

Prospective home buyers are on the lookout for easy care these days, and when they see vinyl floors in your homes they're assured of getting it. They know that vinyl floors are long wearing, stain resistant, and need very little attention. Armstrong Excelon Tile is the most economical type. It's made of vinyl and asbestos. This combination retains most practical advantages of vinyl, but cuts manufacturing costs and sales prices.

Excelon Tile comes in many colors and designs. (Including the popular new metallic effects.) So you can offer floors to match prospects' individual decorating likes. And consistent advertising on Armstrong Circle Theatre, CBS-TV, has helped make Excelon

one of the best known of all building materials. Merchandising Armstrong Excelon Floors points up the fact that you use top-quality products.

recommended uses: above, on, below grade; *gauges:* Service Gauge (1/16") and 3/32" for homes, 1/8" for heavy-duty areas; *approximate price per sq. ft.:* 30-65¢ depending on gauge; *grease and alkali resistance:* excellent; *stylings:* Corkstyle, Spatter, Metallics, Woodtones, straight grain, burl grain, terrazzo texture; *colors:* 79.

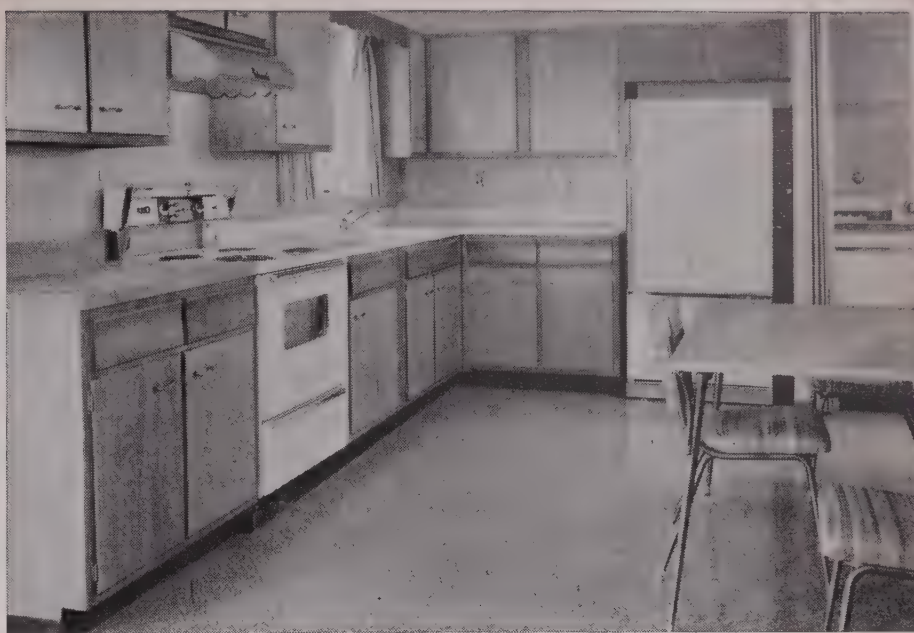


To make sure you get maximum sales advantage from Armstrong Floors, the Architectural-Builders Consultant at your Armstrong District Office can provide you with really effective sales tools. And since Armstrong makes all types of resilient floors, he can recommend without prejudice the one floor best suited to each job. Call him. Or write to Armstrong Cork Company, 508 Sixth Street, Lancaster, Pennsylvania.

This indoors-outdoors breezeway—created by the Armstrong Bureau of Interior Decoration—was seen by many millions of readers in leading magazines and stimulated great interest in Excelon Tile. This is No. 770, with stripes of No. 777 in the kitchen.



TO KNOW ABOUT VINYL FLOORS



HOW HUTCHINSON CONSTRUCTION COMPANY, DENVER, CASHES IN ON THE QUALITY APPEAL OF ARMSTRONG VINYL FLOORS

Denver's biggest builder knows well that high style and nationally advertised materials help clinch sales. That's why Hutchinson features Armstrong Vinyl Floors in all model homes and offers prospects a wide choice of flooring colors and designs. Sometimes, different types of Armstrong Vinyl Floors are used to vary similar interiors. The kitchen directly above, for instance, has Excelon Tile in natural looking "Cork-style." The one at left is made gayly modern with Armstrong Futuresq Corlon—a vinyl sheet floor with glittering metallic chips. Hutchinson's selling brochures play up Armstrong Vinyl Floors. Record sales prove how well this modern merchandising pays off.

"I'll go for this one." Ed Northway, general manager of Hutchinson Homes, and Ed Yorty of Anchor Floorcovering selecting Armstrong Vinyl Floors.



TWO GOOD NEW SELLING TOOLS: A COLOR-SCHEME DISPLAY AND A FLOOR MAINTENANCE KIT

At left: a hard-working display that lets you show prospects your offering of flooring colors and co-ordinated color schemes by the Armstrong Bureau of Interior Decoration; helps your customers visualize and get quick decisions on floor patterns and paint colors.

Above: a floor care kit—signed by you—to give to your home buyers when they move in. A good-will gesture that gets talked about—cuts down unjustified "call-backs," too. Both tools are available through your Armstrong Flooring Contractor.

Armstrong FLOORS

SHEET VINYL CORLON • LINOLEUM • EXCELON (Vinyl-Asbestos) TILE • CUSTOM CORLON and OPALESQ (Homogeneous Vinyl) TILES • LINO TILE • RUBBER TILE • CORK TILE • CUSTOM VINYL CORK TILE • ASPHALT TILE

"Within a few years any house that is not air-conditioned will be obsolescent,"
says Federal Housing Administration



SUN VALLEY* All-Year® Gas Air-Conditioner dramatizes newness, lasting value.
It heats in winter...cools in summer...saves money with low-cost Gas

Housing authorities recognize the growing trend to air conditioning. Today it's one of the best ways to clinch the sale of a new house, one of the most convincing arguments against competition of older homes on the market.

The Arkla-Servel Sun Valley offers many advantages* to the builder as well as to the buyer:

1. Show customer how, from a single compact unit, the Sun Valley heats the whole house in winter, cools it in summer, circulates clean, filtered air at all times.

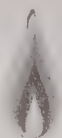
2. Demonstrate its ease of use. Show prospects how the temperature of the entire house is regulated from a single thermostat.

3. Explain to home buyers that because the Sun Valley works with Gas, there are no worries about fuel deliveries. You can tell them, too, that modern Gas is the clean, economical, most dependable fuel.

4. Show them the five-year warranty, real assurance to the home buyer of long life and low-cost maintenance.

Make sure your new homes *stay* new. Contact your Gas company or Arkla-Servel dealer now. Units available in models and sizes to fit any home.

AMERICAN GAS ASSOCIATION

ONLY GAS  **does so much more...for so much less!**

*Trademark. Product of Arkla Air Conditioning Corp., General Sales Offices, Little Rock, Arkansas.

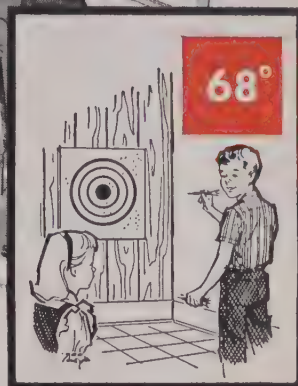


Hydronics* WILL GIVE YOUR HOMES THE EDGE ON COMPETITION

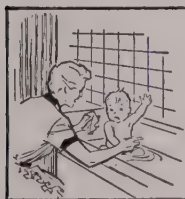
Imagine the extra buying inducement offered by a home where with *only one* heating plant it is possible to have one, two, three or more different temperatures! 72° in the living room, 68° in the game room, 65° in the bedrooms...a temperature to suit the functions of each home area.

A *zoned* B&G *Hydro-Flo* System provides a home with this great advance in comfort heating. This radiant *hydronic* system really lifts your home out of the rut...gives you something to talk about...adds sales value far beyond the actual cost. No other home equipment can offer so many possibilities for more comfortable, more convenient living.

Other *Hydro-Flo* features can be included, either when building or at any time thereafter. Summer cooling, for example, using chilled water in a choice of several ways. Or snow melting coils under driveway and sidewalk, using the regular boiler to supply heat.



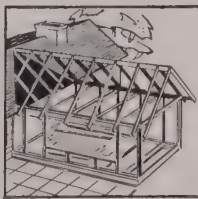
These are *plus* values of the B&G *Hydro-Flo* System



Year 'round hot water



Cleaner, quiet heating



Easy to provide heat for additions



B&G BOOSTER PUMP

This *silent* electric pump is the key unit of a B&G *Hydro-Flo* System. Under thermostatic control it circulates hot water from the boiler through the heating system to maintain a uniform temperature.

**Hydronics: The science of heating and cooling with water.*



Reg. U.S. Pat. Off.

Hydro-Flo SYSTEM

BELL & GOSSETT COMPANY

Dept. FV-10, Morton Grove, Illinois

Canadian Licensee: S. A. Armstrong, Ltd., 1400 O'Connor Drive, Toronto 16, Ontario

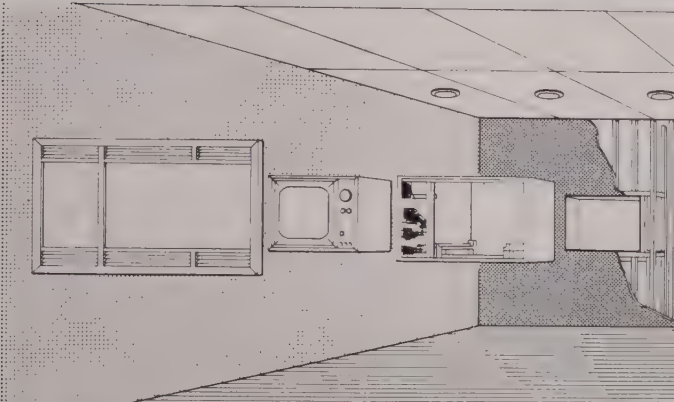
CRA

All the wonderful warmth of wood
is best expressed in redwood.

THE DECISION TO SPECIFY REDWOOD FOR SCHOOL BUILDINGS is based on very practical as well as esthetic considerations. Economy-minded school boards are well aware that Certified Kiln Dried Redwood provides exceptional resistance to weather, decay and even fire... know that it can be easily maintained at minimum cost. Furthermore, the natural beauty of redwood's color and texture lends itself to the clean statements that are characteristic of contemporary school architecture.

CALIFORNIA REDWOOD ASSOCIATION
876 SACRAMENTO STREET • SAN FRANCISCO

CERTIFIED KILN DRIED REDWOOD



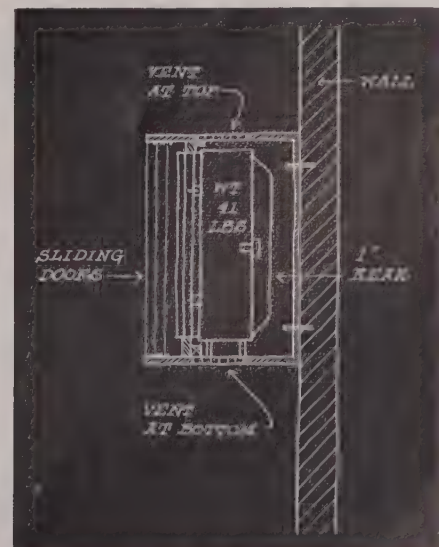
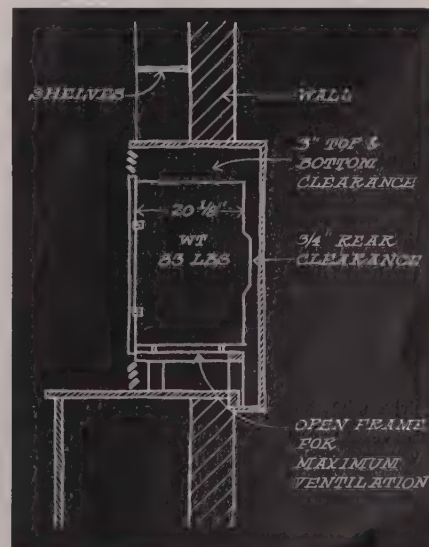
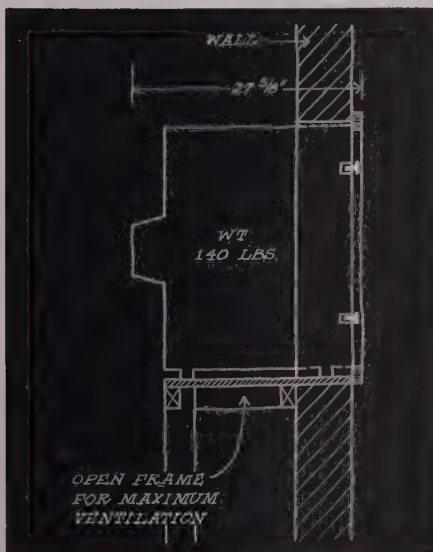
COMPONENTS (l to r): louvered front, set, frame, wall opening.

RCA now offers built-in TV

The mural TV shown above was the big news in RCA's July new products show. Available models: 17" and 21" in black and white, 21" in color. As shown below, sets may be installed in any interior wall as long as enough cooling air can reach the steel-cased tube and circuitry. Components of the system, shown at left, are wall frame to fit wall opening, the set itself, a finished wood frame for the facade. Black and white sets need 2" clearance top and bottom; color needs 4". Sets pull out easily for service. Price: \$225 to \$700.

RCA Victor, Camden, N.J.

For details, check No. 3 on coupon, p 214



THREE DETAILS from AIA file 31-i-6 show three ways of mounting set. Where set can

project to rear (left) it is open to air all around. In the center installation, air enters

through front louvers. Wall-hung set (right) has louvers in top and bottom of frame.

more New Products on p 192



Are you up-to-date on well systems?

First, do you know how much water you need to supply for a quality house?

Second, do you know the kinds of modern pumping systems that can give it to you?

Most standard references talk in terms of 50 gallons per person per day. But with a bath using 30 gallons, a water closet using 6 gallons, a single faucet flowing at 4 gallons a minute, 100 gallons per person per day is no more than adequate. And with the automatic laundry, dishwasher, garbage disposer, and two baths that belong in a quality house (H&H, May), an 800-gallon-per-day total is not too much.

FHA Minimum Property Standards call for a 5 gpm (or 300 gallon per hour) delivery rate, but the Farm Fire Underwriters ask for a system that can supply 500 gph. And the rule of thumb that a pump should be able to fill a day's need in two hours calls for a 400 to 500 gph minimum rate.

You cannot handle this flow with the usual 42 gallon pressure tank (which has only 8 gallons of water

available between pump runs). You will need an 80- or, better still, a 120-gallon tank. With a low-yield well, where the pump will have to pump at a lower rate for a longer time, an even bigger tank may be necessary.

What kind of a pump to buy

Pumps are classed generally as deep or shallow well pumps depending on whether they pull the water up the pipe by suction or push it up by various methods. Shallow well pumps will operate down to 25' at sea level, less as altitude increases. Below 25' you must use a deep well pump.

Shallow well pumps have the advantage of lower first cost, easier installation, and easier service.

Deep wells generally supply a safer, surer source of water and deep well pumps are quieter and, in the case of the submersible, more efficient.

Of the several types of pump available, you need only consider two: the submersible and the jet, with either centrifugal impellers or helical rotors.

Jet pumps may be used in shallow wells or in wells to 300' deep. How they operate is shown in the cross section at the left.

In recent years almost 75% of all pumps sold have been jets. A ½-hp shallow-well jet that can deliver 500

JET SYSTEM pumps water with a centrifugal impeller on the motor shaft. Some water is driven back into the supply line through the throat of a venturi tube, creating a partial vacuum and drawing more water into the supply line. For shallow wells the jet is located at the pump (top). For deep wells it is below the water level. For narrow wells, the casing serves as the return line (near left); wider wells call for separate return and supply lines (far left).



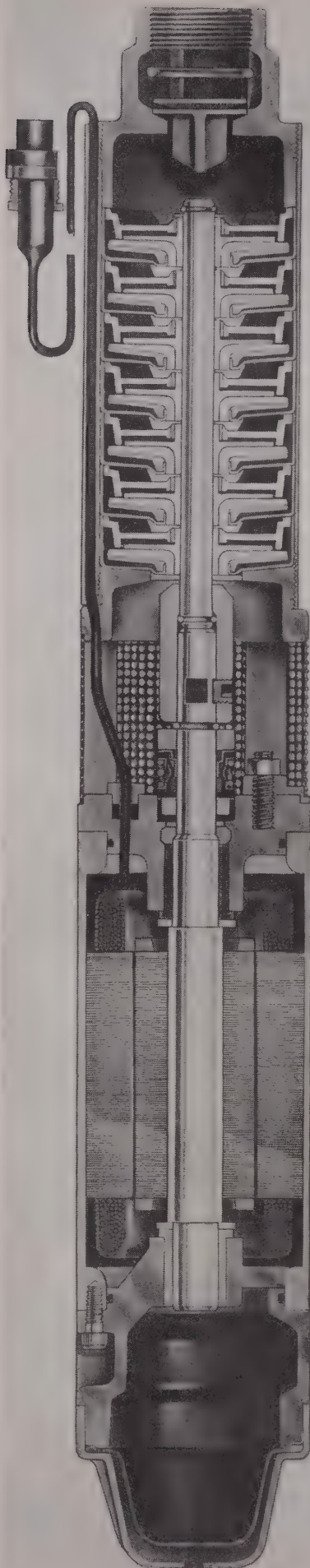
SUBMERSIBLE PUMPS combine pump and motor in a single unit. Usual type (right) uses a series of impellers to raise the water which enters through screened ports above motor. Pump, and sometimes motor, is water lubricated. New helical rotor pumps use spiral steel impeller in spiral rubber sleeve, move water by positive displacement. Entrance ports are large and unscreened.

gph at 30 psi from 20' costs \$100 to \$110; a $\frac{3}{4}$ -hp jet to deliver 500 gph from 70' costs \$160 to \$175. But jets are less efficient than submersibles. And jets must be carefully isolated to reduce pipe, tank, and pump noises.

Submersible pumps are strictly deep well pumps. As illustrations above and right show, a submersible is a single unit containing everything but the controls. This unit is submerged in the well with a delivery pipe and the power cable leading above ground.

The submersible is more efficient than any other pump since all power is used to lift water. It is almost silent since it is insulated by the depth of water. It is finely machined and carefully assembled to minimize the need for service. A $\frac{3}{4}$ -hp submersible that can deliver over 500 gph at 40 psi from 100' costs from \$280 to \$325.

In the past, sand and silt have worked havoc with submersibles and it is usual to warn against using them in sandy wells. But progress is being made: oil-sealed motors forestall sand getting into the power unit and new abrasion resistant materials are being used in impellers. But the biggest gain has been the use of helical rotors (above). The stainless steel rotor turning in a rubber sleeve offers no resistance to sand grains, passes them along with the stream of water.



Who makes what

Barnes Mfg Co, Mansfield, Ohio: Submersibles of $\frac{1}{2}$ to 3 hp for depths to 1050', capacities to 895 gph. Stainless steel and bronze construction. Oil lubricated motor. Convertible jets for depths to 80', capacities to 720 gph; single- and multi-stage jets in $\frac{1}{2}$ to 1 hp to 180', 2700 gph.

For details, check No. 5 on coupon, p 214

Clayton Mark & Co, Evanston, Ill: Submersibles of $\frac{1}{3}$ to 5 hp for depths to 1500', capacities to 3600 gph. Stainless steel and bronze construction. Oil lubricated motor. Single and multi-stage jets for depths to 340', capacities to 920 gph.

For details, check No. 6 on coupon, p 214

Continental Pump Co, St Louis: Submersibles of $\frac{1}{2}$ to $1\frac{1}{2}$ hp for depths to 800', capacities to 1680 gph. Pump is stainless steel helical rotor. Ports are large, unscreened. Shallow-well pumps and deep-well jets of $\frac{1}{3}$ to 1 hp also use helical rotor for depths to 120', capacities to 1320 gph.

For details, check No. 7 on coupon, p 214

Deming Co, Salem, Ohio: Submersibles of $\frac{1}{3}$ to 2 hp for depths to 480', capacities to 1835 gph. Stainless steel and bronze construction, oil-sealed motor. Shallow and deep well jets of $\frac{1}{3}$ to 2 hp for depths to 150', capacities to 1450 gph.

For details, check No. 8 on coupon, p 214

Duro Co, Dayton, Ohio: Submersibles of $\frac{1}{3}$ to 3 hp for depths to 500', capacities to 1700 gph. Stainless steel and bronze construction. Oil sealed motor. Shallow and deep well jets of $\frac{1}{3}$ to 1 hp, for depths to 120', capacities to 1820 gph. Shallow-well pumps have venturi in pump body.

For details, check No. 9 on coupon, p 214

Fairbanks, Morse & Co, Chicago: Submersibles of $\frac{1}{3}$ to 5 hp, for depths to 540', capacities to 3000 gph. Stainless steel and bronze construction. Water lubricated pump and motor. Shallow and deep well jets of $\frac{1}{3}$ to 1 hp, for depths to 110', capacities to 1590 gph. Nylon nozzle and venturi.

For details, check No. 10 on coupon, p 214

Goulds Pumps, Inc, Seneca Falls, N.Y.: Submersibles of $\frac{1}{3}$ to 3 hp for 4" wells (to 10 hp for 6" wells) to depths of 860', capacities to 1170 gph. Stainless steel and bronze construction (UE series has Byrite impellers). Shallow and deep well jets to depths of 170', capacities to 1570 gph.

For details, check No. 11 on coupon, p 214

Jacuzzi Bros, Inc, Richmond, Calif: Multi-stage jet pumps for a wide range of shallow and deep well uses to 400' depths in large capacities, high pressures.

For details, check No. 12 on coupon, p 214

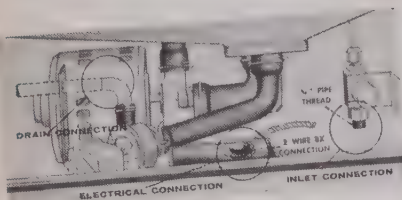
continued on p 196

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NEW HOFFMAN WATER HEATERS WITH ALCOA ALUMINUM HEAT TO BACTERIA-KILLING 180°

A tank of a special Alcoa® Aluminum alloy enables Clayton and Lambert's Hoffman "Alumilux" water heaters to provide a constant, safe supply of 180° water—the sterilizing temperature demanded by law for public restaurants and laundries. You can use this sales point to swing customers your way, as an indication of the quality you have built into your home.

Available in both electric and gas models, "Alumilux" water heaters are also superior for home dishwashers and clothes washers since, at high temperatures, water loosens and removes stubborn dirt. Solid aluminum tanks can withstand maximum hot water temperatures, will not

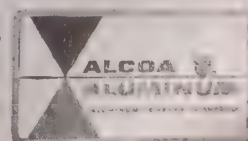
produce red or discolored water, or develop cracked or chipped linings—assurance of trouble-free service your prospects will appreciate.

A growing number of users insist upon heaters with Alcoa alloy tanks. Your customers know that aluminum's high conductivity means the water heats faster and is delivered at higher temperatures. And they know that aluminum's inherent corrosion resistance means longer life and less maintenance. For the complete story on the added convenience and savings of Alcoa alloy water heaters, write: Aluminum Company of America, 1882-H Alcoa Building, Pittsburgh 19, Pennsylvania.

Hoffman "Alumilux" water heaters: gas model 30 AA (above) available in units with capacity from 20 to 75 gal and electric model AE in units with capacity from 30 to 80 gal. All heaters feature Alcoa alloy tanks for fast, dependable heating to 180°.

Your Guide to the Best in Aluminum Value

For Exciting Drama Watch "Alcoa Theatre," Alternate Mondays, NBC-TV, and "Alcoa Presents," Every Tuesday, ABC-TV



"AN EXTRA QUALITY FEATURE" says DALE BELLAMAH Nation's sixth largest builder



During 1958 Dale Bellamah constructed 1259 homes in New Mexico and El Paso, Texas. All of these homes were equipped with Float-Away closet doors. Dale Bellamah's salesmen use Float-Away Doors as a selling tool . . . "an extra quality feature". And, the customers love them. As Dale Bellamah puts it, "they like the fact that they can gain access to all of the closet without the doors interfering and without a lot of room space being taken up by the door itself". Dale Bellamah's construction men like the ease of installation and the lack of maintenance.



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Wire collect or write for complete information and prices.

FLOAT-AWAY DOOR CO.

(Formerly Berry Door Company)

1173 Zonolite Road, N. E.

Atlanta 6, Georgia



Lancaster Pump & Mfg Co, Lancaster, Pa: Submersibles from 1/3 hp to large commercial sizes. Stainless steel and bronze construction, water lubricated. Shallow and deep well jets to 150' depths, 1240 gph.

For details, check No. 13 on coupon, p 214

A. Y. McDonald Mfg Co, Dubuque, Iowa: New Century line of jets in 1/3 and 1/2 hp sizes for depths to 80', capacities to 875 gph. Cast iron pump bodies, bronze or McDonalite plastic impellers and venturis.

For details, check No. 14 on coupon, p 214

Morrison Co, Milwaukee: Submersibles of 1/2 to 1 1/2 hp for depths to 400', capacities to 1090 gph. Motor sealed against water, pump is water lubricated. Shallow and deep well jets of 1/3 to 1 hp for depths to 120', capacities to 2150 gph.

For details, check No. 15 on coupon, p 214

F. E. Myers & Bro, Ashland, Ohio: Submersibles of 1/2 to 3 hp for depths to 400', capacities to 3000 gph. Bronze and stainless steel construction. Motor oil pressure is balanced with well water. Deep and shallow well jets of 1/3 to 1 1/2 hp for depths to 150', capacities to 1800 gph.

For details, check No. 16 on coupon, p 214

Peerless Pump Div, Food Machinery & Chemical Corp, Los Angeles: Centrifugal and helical rotor submersibles in 1/2 to 3 hp sizes. Centrifugals pump to 440', deliver up to 2010 gph; helicals to 600', deliver up to 1180 gph. Stainless steel and bronze construction. Motors sealed in oil. Helicals have large open ports.

For details, check No. 17 on coupon, p 214

Rapidayton Div, Tait Mfg Co, Dayton, Ohio: Submersibles of 1/4 to 3 hp for depths to 500', capacities to 2400 gph. Impellers are nylon in stainless steel cases. Sealed motor. Shallow and deep well jets of 1/3 to 2 hp for depths to 200', capacities to 1350 gph.

For details, check No. 18 on coupon, p 214

Reda Pump Co, Bartlesville, Okla: Submersibles from 1/3 hp to large industrial sizes. Units 1/3 to 5 hp fit 4" well, work to depths of 1500', capacities to 3660 gph. Stainless steel and bronze construction. Oil-filled motor and capacitor.

For details, check No. 19 on coupon, p 214

Red Jacket Mfg Co, Davenport, Iowa: Submersibles of 1/3 hp to 10 hp for depths to 1000', capacities to 6000 gph. Water-cooled, oil-lubricated, hermetically sealed motor. Deep and shallow well jets for depths to 160', capacities to 1350 gph.

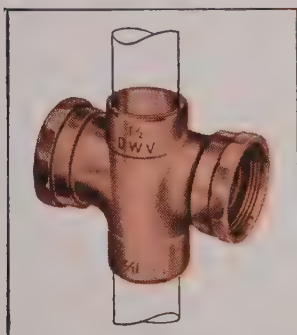
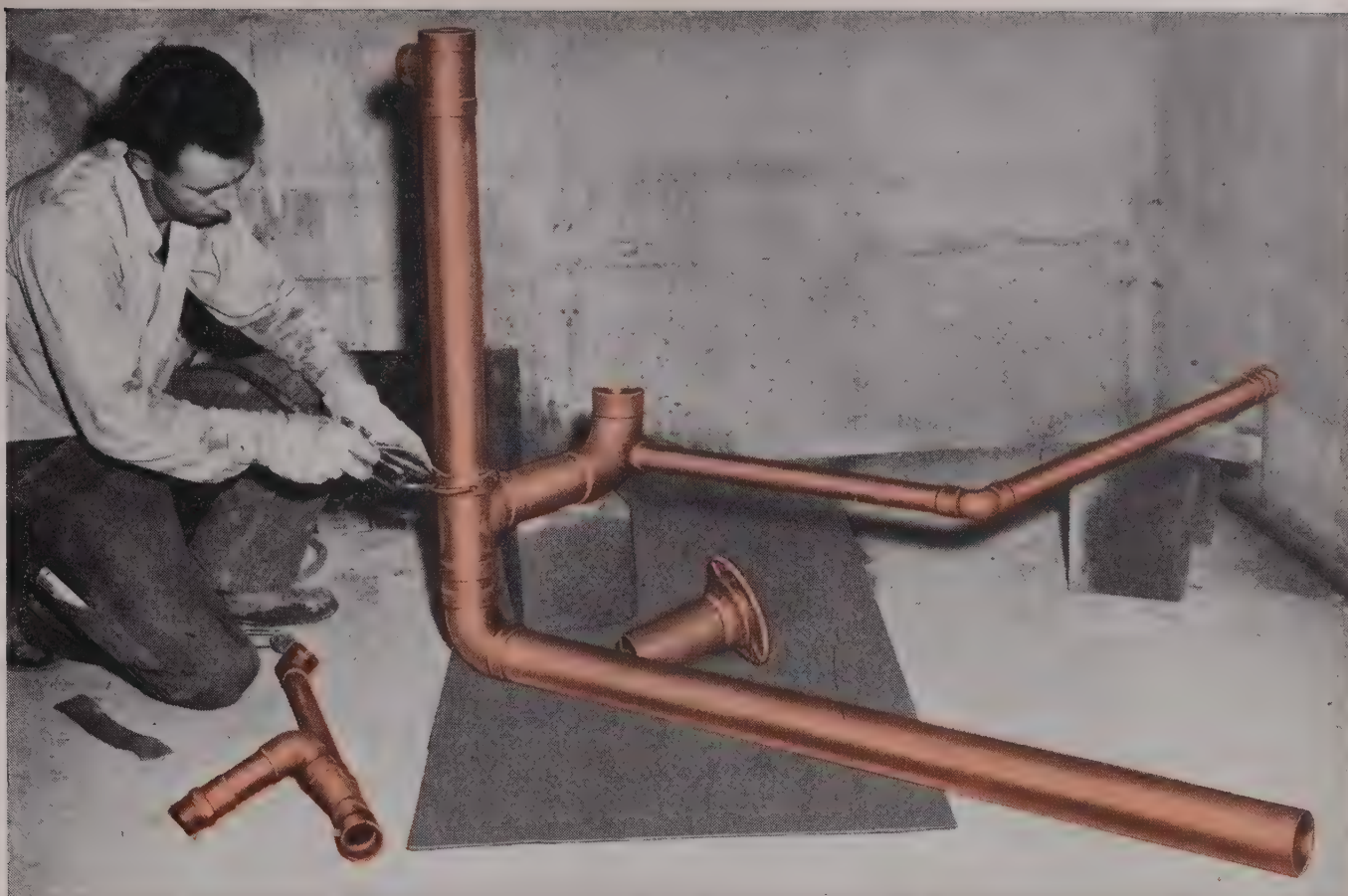
For details, check No. 20 on coupon, p 214

A. P. Ruth & Co, Houston: Shallow and deep well jets. Single stage pumps of 1/3 to 1 1/2 hp for depths to 60', capacities to 1450 gph. Multi-stage pumps of 1/2 to 2 hp, to 250', capacities to 1020 gph. Impellers are mounted in pressure tank.

For details, check No. 21 on coupon, p 214

Sta-Rite Products, Inc, Delavan, Wis: Centrifugal submersibles of 1/3 to 3 hp, turbine bowl submersibles to 20 hp, work to 800' depth, capacities to 6000 gph. Impeller section is high-impact polystyrene. Shallow and deep well jets of 1/3 to 2 hp for depths to 340', capacities to 1650 gph.

For details, check No. 22 on coupon, p 214



Have you seen this new cast drainage fitting for back-to-back waste lines?

Anaconda Fitting 1835-3-3 lets you install threaded nipples to copper stack prior to plastering.

Our fittings catalog lists complete range of drainage fittings. Ask for Anaconda Publication C-12.

PREASSEMBLY WITH COPPER TUBE CUTS COST. You save time using Anaconda copper tube and solder-joint fittings for drainage lines—plumbing trees can be assembled in the shop or at the job—when and where it's most convenient. Copper tube gets the job done quicker—construction schedules are maintained. Fatigue and strain from handling heavy materials, particularly in overhead work, are eliminated because a copper installation weighs only *one fourth* as much as one of ferrous piping. (No heavy tools needed either.) Save time, effort and money—install the modern drainage system with Anaconda copper tube and fittings. For more information on copper tube, write: The American Brass Company, Waterbury 20, Conn. In Canada: Anaconda American Brass Ltd., New Toronto, Ontario.

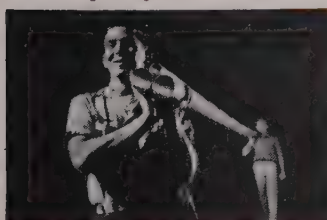
5902

ANACONDA® COPPER TUBE AND FITTINGS for soil, waste and vent lines

Available through plumbing wholesalers. Products of The American Brass Company



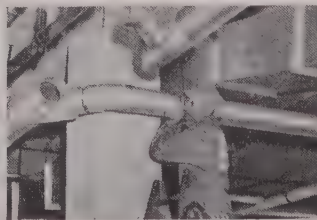
Longer Lengths—Fewer Joints



Preassembly—Saves Time

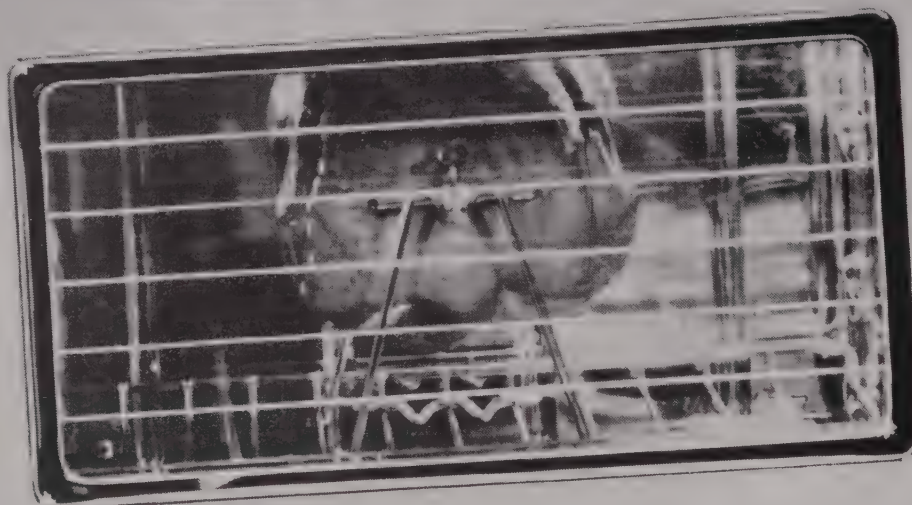
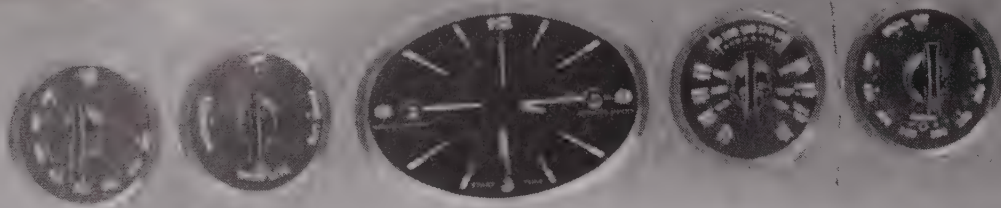


Lightweight Copper—Easier Installation



Compact Connections—Save Space





GAS AND ELECTRIC
OVENS ARE
INTERCHANGEABLE
TAPPAN

GAS AND ELECTRIC OVENS ARE INTERCHANGEABLE

Give your customers their choice of fuel. Tappan's ovens are identical twins—you can't tell gas from electric ovens. Surface units are interchangeable, too, in same size cutouts.

You and your customers will like this feature. ✓

EXCLUSIVE FEATURES

Proven customer pleasers include

- Lift-off door for easy cleaning
- Illuminated control panel
- 6 colors to match or contrast with decorations
- Sizzle 'N Simmer burners—highest turn-up, lowest turn-down

You and your customers will like this feature. ✓

EASY TO INSTALL

Tappan ovens fit into standard 24" cabinets. Tappan surface units feature a patented clamp which allows one-man installation. Fast—all work is from the top.

You will like this feature. ✓

QUALITY NAME

Your customers know and trust the Tappan name. Full-page, full-color ads in *Reader's Digest*, *Better Homes and Gardens*, *Ladies' Home Journal*, *Woman's Day*, and *Sunset* plus radio and TV pre-sell women on Tappan. Proof: Tappan sells more built-ins than any other manufacturer.

You and your customers will like this feature. ✓

EASY TO SERVICE

Ovens are serviced from the front, surface units are serviced from the top—no need to remove units. Parts warranty and fast replacement help keep your customers satisfied.

You and your customers will like this feature. ✓

For more information on Tappan Built-Ins write

The Tappan Company
Department HH-89
Mansfield, Ohio

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TAPPAN

New products

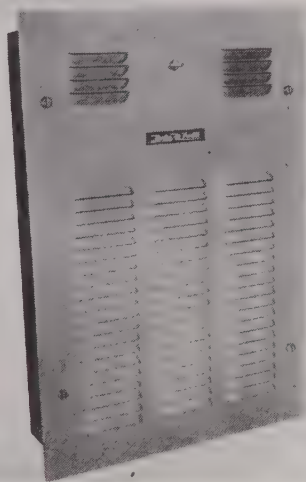
start on p 191



New recessed bathtub needs no extra support because of built-in H-frame and light weight (125 lb). Straight apron edge simplifies flooring installation. Wall flange extends behind wall covering to prevent seepage. Wide seat runs full length. Seamless steel tub is 32" wide, 16¼" deep, 5' long, in six colors and white.

Briggs Mfg Co, Warren, Mich.

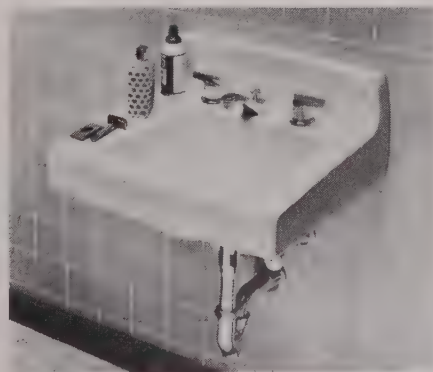
For details, check No. 23 on coupon, p 214



Built-in air freshener mounts flush to the wall between studs 16" oc. Two axial flow fans move 150 cfm of room air through dust filter and activated charcoal odor filter. Only connection needed is a 115-volt a-c line. Face plate is 15½"x 22½" gray prime coated. Price: \$129.95.

Ductless Hood Co, Manhasset, N.Y.

For details, check No. 24 on coupon, p 214



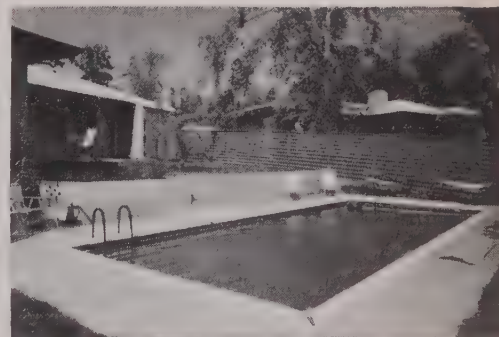
Off-center lavatory has curved left edge to provide wide flat shelf for toilet-ries, etc. Front and right edges slope to drain into bowl. Unit has concealed front overflow, anti-splash rim, integral soap dish, comes with or without legs and towel bars, in white and eight colors, in 20"x18" or 24"x20" sizes.

American-Standard, New York City.

For details, check No. 25 on coupon, p 214



OUR POOLS HAVE WON ACCEPTANCE BY HOME OWNERS AND BUILDERS ALIKE BECAUSE POOLS FILL A REAL NEED ... THE HOME WITHOUT A POOL WILL SOON BE AS OBSOLETE AS ONE WITHOUT A BATHROOM!



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INS-809

continued on p 200

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NO DIRT-CATCHING CRACKS—BondWood units are unbeveled, square-edged, with flush joints—no gaps, no cracks to catch dirt.

THICKER, LONGER WEARING SURFACE—BondWood's wearing surface is 81.8% thicker than laminated block. Gives years of extra life.

BondWood units are 5/16" x 19" x 19", composed of 16 squares, 4 3/4" x 4 3/4", consisting of several small slats and held together with paper which is removed during installation.



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New products

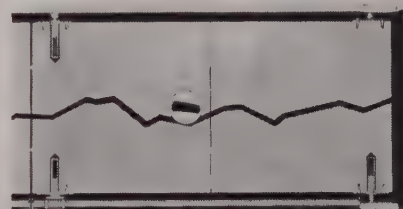
start on p 191



New under-eave vent is formed in 8' and 12' lengths from .025" Colorweld baked-enameled aluminum, fits a 2 1/2" wide opening. Vents come perforated, primed, and ready for painting, are claimed to be cheaper to install than wire screen. Acceptable to FHA and all building codes.

Reynolds Aluminum Supply, Atlanta.

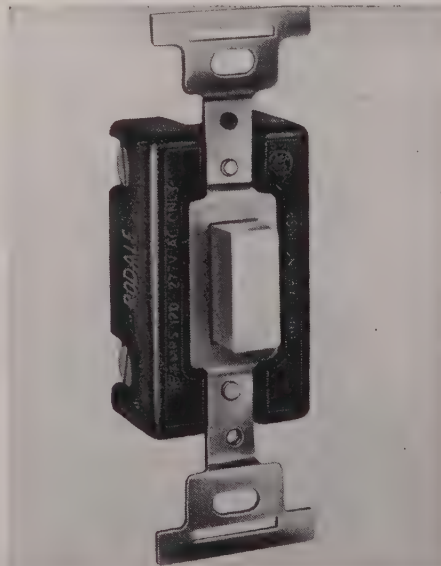
For details, check No. 26 on coupon, p 214



New folding door hardware uses a cylindrical traverse rod for top track. Travelers come attached to rod, ride on two nylon ring bearings. Door guide snaps positively to traveler rivet. Top and bottom pivot brackets and bottom guide are spring loaded to assure snug fit.

Leigh Building Products, Coopersville, Mich.

For details, check No. 27 on coupon, p 214



Rodale Touchette model B is low-cost a-c switch that requires no special wiring, fits standard outlet boxes (it is only 1" deep), operates on full line voltage. Contacts are silver, cam and ratchet are nylon, all other internal parts brass or bronze. In brown, single-pole Touchette costs 90¢.

Rodale Mfg Co, Emmaus, Pa.

For details, check No. 28 on coupon, p 214

continued on p 202

HOUSE & HOME

ANY
WAY
YOU
LOOK
AT
IT...



*AllianceWare Porcelain-on-steel
Bathtubs give you more important selling features!*



Complete Range of styles, sizes and colors to match every need and budget.



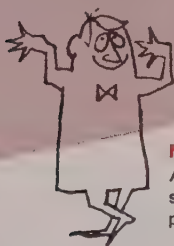
New Slip-Proof Tub Floors, Twice as safe as a regular bathtub; yet as comfortable and easy-to-clean as regular porcelain enamel.



Patented Wall-Hung Installation holds the tub firmly in position, absolutely eliminating separation of bathtub from wall.



One Man Can Install instead of two because AllianceWare bathtubs are fashioned from durable steel... stronger than cast iron but easier to handle.



More Service in the Surface. Acid, stains and dirt can't penetrate special AllianceWare enameling process.

Why don't you send for free copy of 6-page folder "Luxury Bathrooms for Every Budget."



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Lasting Quality



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THE HOUSES
YOU BUILD

RUSTPROOF

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Nails—over 100 types and sizes*

Building Corners—to fit all siding

Flashing and Roll Valley—in all popular widths*

*COMPLY WITH FHA REQUIREMENTS

nichols
WIRE & ALUMINUM CO.
Birmingham, Tenn.

World's Largest Manufacturer of Aluminum Nails

New products

start on p 191



Indoor-outdoor incinerator has locking top door to prevent accidental opening, optional key-locking controls. Time control can be set for wet, dry, or normal garbage. Burner, pilot assembly, and combustion chamber are designed to deal with excessive outdoor winds. Unit has aluminum lining to prevent corrosion and to cut outside heat loss.

Caloric, Jenkintown, Pa.

For details, check No. 29 on coupon, p 214



Low cost incinerator uses corrugated firebrick combustion chamber; radiant ceramic flue liner consumes smoke and odor; corrugated liner gives added insulation. Other features: heavy cast iron leak-proof lid, barometric draft control, jet burner with 35,000 Btu input, automatic timer. Capacity: 1½ bushels; list price: \$139.95.

Majestic Co, Huntington, Ind.

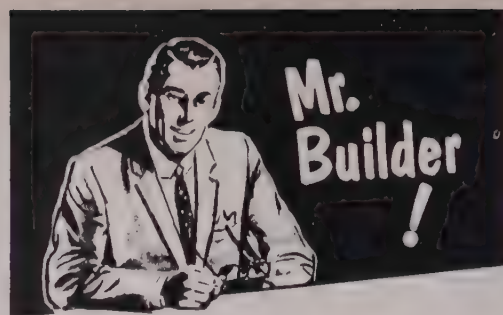
For details, check No. 30 on coupon, p 214



New GE Disposall has highly efficient shredding area: ½ hp motor powers the flywheel, whirls waste into shredding ring where two hammer-like impellers hold it against ring as it is ground. Flywheel, ring, and impellers are stainless steel.

General Electric, Louisville.

For details, check No. 31 on coupon, p 214



IF YOUR ELECTRIC BUILT-IN LINE DOESN'T HAVE A POPULAR PRICED DOUBLE OVEN MODEL THEN
Investigate

The NEW
Modern Maid
ELECTRIC OVENS



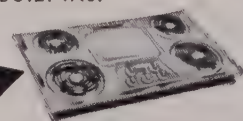
With the large 18 in. upper oven

... and the

New economy size 16 in. lower oven ...

MODERN MAID is also the only line with a complete assortment of Super-Thin Range Tops that allow drawer space underneath and are completely interchangeable with the MODERN MAID GAS BUILT-INS.

36" range top with griddle



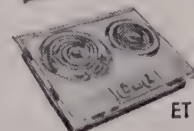
ET 36 G

30" four-unit range top



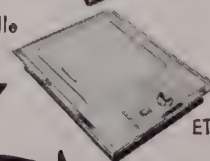
ET 30

16" two-unit range top



ET 16

Matching griddle model, only 16" wide



ET G

Call or Write today for specifications and descriptive literature



TENNESSEE STOVE WORKS
CHATTANOOGA 1, TENNESSEE
In Canada
Superior Electric Ltd.
Pembroke, Ontario

continued on p 204



OFFICE BUILDING of Murray Construction Co., Inc., Springfield, N. J. Architects: Rotwein & Blake.



Announcing Glasweld— Weldwood's colorfast new all-mineral panel for permanent beauty in buildings

The window insert components and entrance soffit fascia in this building illustrate just two of the limitless design opportunities opened to you with Weldwood's new Glasweld. Strong, rigid, and colorful, Glasweld is an exterior grade steam-cured asbestos-reinforced panel with a permanent all-mineral enameled surface.

Glasweld's more than 30 standard colors and patterns are guaranteed color-

fast. It is fully weatherproof, inert, and incombustible, and resists damage from chemicals, impact, and abrasion. An effective moisture barrier, Glasweld is ideal for curtain wall components and bathroom interiors where rotproof, warp-free stability and low maintenance are as important as colorful durability.

For detailed drawings, specifications, and prices for stock and special colors and sizes, mail the coupon.

GLASWELD® by WELDWOOD®

FREE NEW GLASWELD BOOKLET

United States Plywood Corporation
Dept. HH 8-59, 55 West 44th Street,
New York 36, N. Y.

☐ Please send me the new data booklet,
"Weldwood Glasweld—#1914."

☐ Please send me prices and delivery
information on specific job (description
herewith).

Name.....

Firm.....

Address.....

City.....Zone.....State.....

For Your Finest Homes Reuten



54 OL Tru-Bow

window walls



REUTEN Tru-Bows and Tru-Walls . . . quality wood windows . . . enhance the beauty of homes in any architectural style. The OL Tru-Bow (top picture) fits perfectly in a Modern setting; the OC Tru-Bow (second picture) adds charm to a Colonial house. Four additional styles and over sixty combinations of sizes, pane shapes, and vent positions can be ordered. Both Tru-Bows and Tru-Walls meet custom quality standards and are stocked by regular millwork jobbers.

See our complete catalog in Sweet's A or LC files, our display in the Architects Building, 101 Park Ave., New York City, or write for additional information.

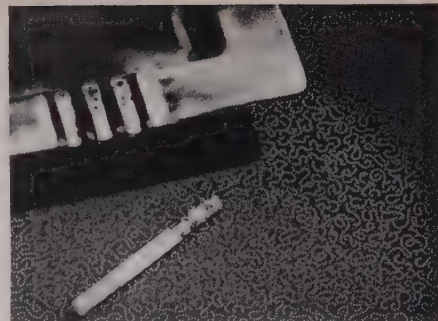


FRED REUTEN INC.

CLOSTER, NEW JERSEY

New products

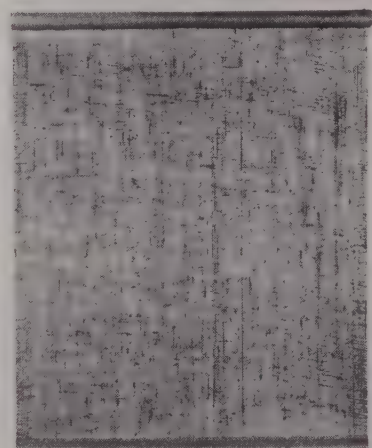
start on p 191



Scorch-proof countertop is possible with new Bolta-Top line of vinyl surfacing materials. It dissipates heat to 320F, can be freshened easily with a damp cloth. The material resists abrasion, stains, deforming, and most household solvents. Introduced in two patterns and 11 colors, it will be available 32" wide in 15 yd rolls.

General Tire & Rubber, Akron.

For details, check No. 32 on coupon, p 214



○

Decorative window shades are made of loosely woven flax threads held together by a vinyl finish. They shed dust, can be washed with mild soap and water. Shades come in five vat-dyed colors—red, yellow, blue, green, and natural—that are color fast under normal conditions. Stock shades are 6' long, 40" wide, mounted on noiseless spring roller, sell for about \$7.50. Shades may be ordered up to 108" wide.

Breneman-Hartshorn, Cincinnati.

For details, check No. 33 on coupon, p 214



Vinyl surfacings for walls and counter tops are new from Armstrong in six colors, all with gold and silver chips on plain backgrounds. Metallic chips are protected by smooth vinyl. Starglow patterns come in sheets 30", 42", and 72" wide.

Armstrong Cork, Lancaster, Pa.

For details, check No. 34 on coupon, p 214

continued on p 206

HOUSE & HOME

COPPER PLUMBING SHOWS BUILDER HOW TO SAVE \$2371 ...



The BUILDER likes lower costs

The builder of 850 new homes in Kansas City has just completed a test in two identical houses. In one, the plumbing was 100% Chase® Copper Tube—in the other it was ordinary pipe. Direct comparison of costs was made. And *all concerned give copper their vote.*

THE BUILDER, J. A. Peterson, found copper cost a little less per home than any other pipe he could use—*could save \$2,371.50 on the complete project if he switched to copper.*

THE PLUMBER, Garney Plumbing & Heating Company, found Chase copper tube easier and quicker to work with—*time per installation was cut 1/3 compared with rustable pipe.*

THE DEVELOPER, Mr. Peterson, found a definite sales advantage—*people appreciate the obvious values of copper.*

THE BUYER of the test house using copper says “*We’re thrilled and pleased with our modern copper plumbing installation.*”

It will pay YOU to plan on using Chase Copper Tube hot and cold water lines and Chase Drainage, Waste and Vent in the homes you build. Ask your Plumbing Contractor for details—see your architect or write Chase at Waterbury 20, Conn.



The PLUMBER likes easier work



The DEVELOPER likes sale-ability



The BUYER likes dependable comfort



Chase



BRASS & COPPER CO. WATERBURY 20, CONN.

Subsidiary of **Kennecott Copper Corporation**

THE NATION'S HEADQUARTERS FOR ALUMINUM • BRASS • BRONZE • COPPER • STAINLESS STEEL AND FORGINGS

Atlanta Baltimore Boston Charlotte Chicago Cincinnati Cleveland Dallas Denver Detroit Grand Rapids Houston Indianapolis Kansas City, Mo. Los Angeles Milwaukee Minneapolis Newark New Orleans New York (Maspeth, L. I.) Philadelphia Pittsburgh Providence Rochester St. Louis San Francisco Seattle Waterbury



Building:
El Lago Apartments
North Sheridan Road
Chicago, Illinois
Owner:
El Lago Apartments, Inc.
Architect and Engineer:
Irving M. Karlin Associates
General Contractor:
C. A. Tharnstrom & Co.
Electrical Contractor—
Avondale Engineering



No. 5014
U-ground duplex
power outlet.
One of a full
line of U-ground
devices for every
residential,
commercial and
industrial use.

**ANOTHER
IMPORTANT
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Wiring Devices

**SPECIFICATION
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ARCHITECTS, ELECTRICAL ENGINEERS, ELECTRICAL CONTRACTORS everywhere specify Leviton. You, too, can take advantage of Leviton's complete line of Specification Grade wiring devices. Investigate this comprehensive line yourself! Sold thru authorized electrical distributors.

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FOR FULL INFORMATION AND CATALOG WRITE TO:

LEVITON MANUFACTURING COMPANY • BROOKLYN 22, N. Y.

Chicago • Los Angeles • Leviton (Canada) Limited, Montreal

For your wire needs, contact our subsidiary: AMERICAN INSULATED WIRE CORPORATION

New products

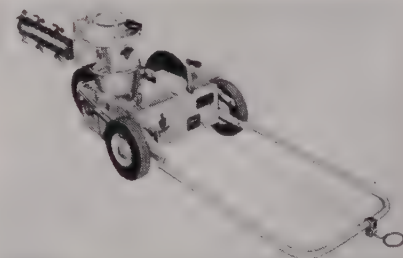
start on p 191



Portable auger will drill holes 4" to 12" wide and 48" deep in most soils at a hole-per-minute rate. Feed screw folds down to give 5' height when towing between jobs. Unit is 6' long, 40" wide. Power for auger is supplied through chain drive by 5½-hp gasoline engine. Tilting digger drills vertical holes on slopes or uneven ground.

J. R. Prewitt, Pleasant Hill, Mo.

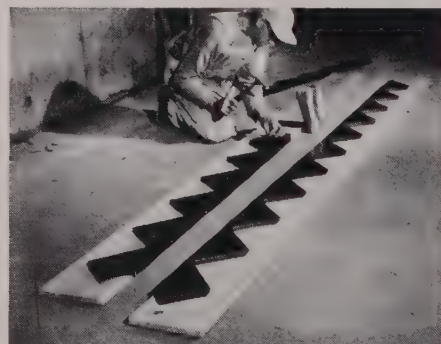
For details, check No. 35 on coupon, p 214



Self-propelled trencher will cut a 2" to 3" trench 3' deep for water or power lines. Unit will follow a line to cut trench unattended while workmen prepare pipe or cables, will follow curve around plantings if needed. Six speeds to 400' per hour are controlled by single lever. Gasoline or electric powered unit weighs 220 lb; in 3¼-hp gasoline version, costs \$495 fob factory.

Davis Mfg Inc, Wichita.

For details, check No. 36 on coupon, p 214



Steel stair forms make laying out attic and basement stairways a cinch. Forms insure 8" rise and a 9" run plus nosing. Stock sets for 8' ceiling height can cover floor-to-floor distances of 7'8" to 8'4"; with one rise cut off with hacksaw, cover 7' to 7'8" story. Sets include two 6- and two 5-rise forms plus nails, sell retail for \$12.

Bilco Co, West Haven, Conn.

For details, check No. 37 on coupon, p 214

continued on p 208

QUALITY AT FIRST GLANCE



Panelgroove, in large or accented areas, lends a distinctive personality to any home, creates good buyer impressions right off.

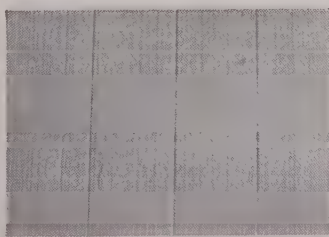
Siding by Masonite helps sell from the start

Best way to start a sale off right is to point out the good-looking, quality materials you use. On the outside, for example, siding of Masonite hardboard can help you a number of ways: clean-looking designs your prospects will like, achieved with any one or a combination of 16 different panel products...quality of manufacture, ability to withstand the elements year after year, and carefree maintenance—buyer benefits you can point to with pride. Next time, try this approach to selling homes; it works! In the meantime, consider the Masonite exterior products shown here. Your dealer or Masonite salesman can tell you all about these tough, grainless panels. Or, if you prefer more leisurely consideration, send the coupon for an illustrated brochure.

©Masonite, Shadowvent, Panelgroove and Ridgegroove are registered trade-marks of Masonite Corporation.



Shadowvent, Masonite's revolutionary lap siding. It goes up fast and not a nail shows.



Ridgegroove has double sales appeal: clean-cut vertical grooves on an interesting combed texture.

MASONITE
CORPORATION



©Masonite Corporation—manufacturer of quality panel products

Masonite Corporation
Dept HH 8, Box 777, Chicago 90, Ill.

Please send color brochure describing Masonite exterior panels

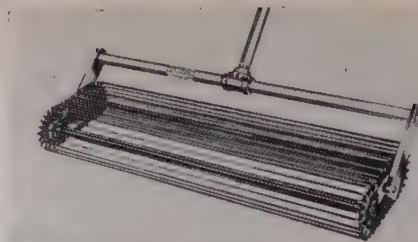
Name.....

Firm.....

Address.....

City.....State.....

Zone.....County.....



New concrete finisher is designed to do a better job faster, cheaper. The Jitter-bug crawler passed over a slab depresses large aggregate, brings a thin layer of paste to the surface for quick easy finishing. Steel rods 35" long drop into mix, hold aggregate just below surface as crawler is pushed across slab. Tool needs only hosing off after use. Price: \$115. Goldblatt Tool, Kansas City.

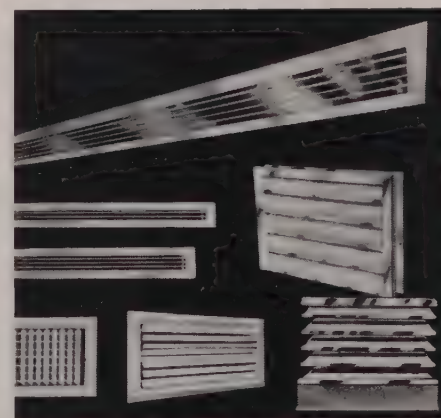
For details, check No. 38 on coupon, p 214



New small generator from Borg-Warner is lightweight, low cost. Generator uses a permanent magnet alternator that eliminates all brushes, slip rings, or commutator to give full power for long periods of continuous running. Fiberglass cover muffles the motor sounds and protects the unit from damage. Makers claim Zeus units are maintenance free.

Pesco Products, Burbank, Calif.

For details, check No. 39 on coupon, p 214



Diffusing grilles in Titus' new Eagle line come in 30 louver styles and 24 border designs. Included are slim line grilles for ceiling applications; linear grilles for side-wall, window sill, or floor use; supply and return grilles; outside louvers and pent-houses. All are extruded aluminum. Brush satin, etched satin, and clear lacquer are stock finishes, color anodizing is optional. Titus Mfg Corp, Waterloo, Iowa.

For details, check No. 40 on coupon, p 214



**ULTRA-PANE
INSULATING
GLASS**
in the new
addition to
Woman's Hospital,
Cleveland

Ellerbe & Co.,
Architects
George A. Rutherford,
Builders



Now! Ultra-pane insulating glass is made with miracle TITANIUM!

Ultra-pane's famous "T" channel has been further improved! Experiments have shown that Titanium conquers many of the problems of insulating glass channel. Titanium makes it peculiarly suited to withstand the stresses and strains of temperature variation and rough handling in construction and transportation. Only Ultra-pane is licensed to use titanium.

Remarkable Demonstration*

Glass-to-metal sealant used in Ultra-pane holds up under strenuous torture test. A production-run unit of Ultra-pane was put to this test: The channel was twisted out of shape, shattering the glass . . . but the glass did not break free from the channel. Because insulating glass must be airtight and watertight any leakage destroys its value. Ultra-pane has a seal so strong and permanent that it not only withstands these severe lab tests but also practical field tests. Ultra-pane, for instance, needs no pressure valve when being transported over high altitudes.

**A demonstration sample channel, dramatically twisted as shown at left, will be sent to you on request so that you may examine the amazing glass-to-metal bond available only with Ultra-pane's unique and exclusive sealant.*



ULTRA-PANE

HERMETICALLY SEALED

Insulating GLASS UNITS

guaranteed for all U. S. climates

ULTRA-PANE: 19220 Miles Ave., Cleveland 28, Ohio
Phone MO 3-7610

General Electric Kitchen Laundry

"Planned Profit Package"

offers you 6 big advantages



Planning and styling help

Your General Electric distributor or dealer has a Custom Kitchen Design service to help you with layouts, perspectives, color coordination. A builder sales specialist will assist you in planning your kitchen, show you how you can save space *and* money. This can mean more profit for you.



PLUS these 5 big bonuses:

Power of brand preference. Among the homebuyers . . . Women think General Electric makes the best home appliances. Among appraisers . . . Lending institutions in all parts of the country use General Electric's high quality as a basis for granting high appraisals.

Savings on labor and installation. General Electric "Straight-Line" Appliances provide flexibility—are easily and conveniently installed.

Product availability. 100 General Electric distribution points all over the country assure you wide selection and availabilities.

Complete merchandising program. Merchandising tools, widespread advertising and publicity help create model home traffic for you.

Product service. Your General Electric distributor or dealer relieves you of the product service responsibilities covered by the manufacturer's written warranty. This can increase your profit.



As an authorized builder of "Live Better Electrically" MEDALLION HOME, you get prestige and promotional advantages. Ask your local utility about this program.

For more information, send this coupon to:

Progress Is Our Most Important Product

GENERAL  ELECTRIC

General Electric Company, Home Bureau
Appliance Park, Louisville 1, Kentucky

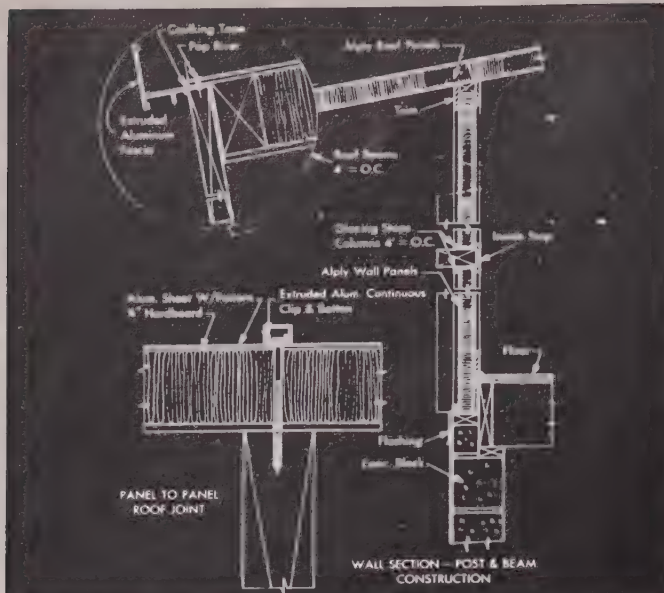
Please have the local General Electric builder sales representative contact me.

NAME _____

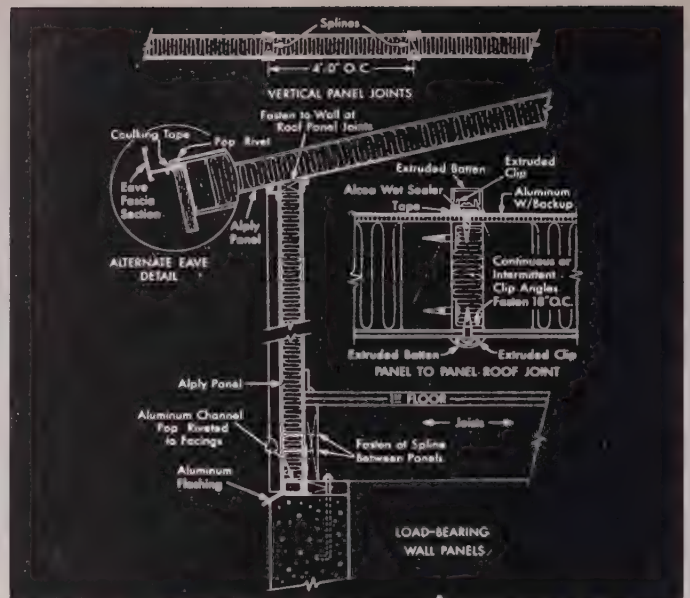
ADDRESS _____

CITY _____ STATE _____

HH-8



Alcoa's Alply panels—sandwiches of sheet aluminum, foamed styrene, and various sheet building materials—are fully described in a new 24-page brochure called *This is Alply*. Above are two details from the booklet showing how the new structural panels can be used in post-&-beam construction and in load-bearing walls. Other details included in the brochure show possible joining and application



methods. The technical data report tests on weather resistance, vapor transmission, and insulation values. Tables show thermal characteristics, acoustical properties, strength properties, resistance to corrosion. Some of the various aluminum surfaces and finishes available are shown in color.

Alcoa, Pittsburgh.

For copy, check No. 41 on coupon, p 214

How to use the new building materials



How to build a patio is one of a series of data sheets showing how to use Filon's translucent fiberglass panels. This one shows how the frame is put together, how the Filon sheets are installed. Other details show how the sheets can be used to promote ventilation. Tables tell sizes and weights of panels, percentages of heat and light transmitted. Other recent data sheets include facts on fences, awnings, shoji panels, etc.

Filon Plastics, El Segundo, Calif.

For copy, check No. 46 on coupon, p 214

Masonite's guide for builders for 1959 comes in two parts: a 20-page brochure on interior panel products and a 12-page brochure on exterior panels. Both booklets describe the various Masonite products available, give lists of sizes, tables of properties. Application details and finishing instructions for the suggested uses are included.

Masonite Corp., Chicago.

For copy, check No. 42 on coupon, p 214

Electric heat manual from Majestic tells how to engineer and install an electric heating system. Subjects covered: insulation, humidity and condensation, calculating heat losses, estimating power consumption, design temperatures, tips on selling electric heat, etc. 16 pages.

Majestic Co., Huntington, Ind.

For copy, check No. 44 on coupon, p 214

Uses for western red cedar are outlined in a new 32-page booklet. It tells how the wood stands up to changes in weather and temperature, how well it insulates, how it bonds. Conversion tables translate square footage to board footage for all sizes and uses. Photos show all grades and types in side-by-side comparison and in residential use. Drawings show application details for siding, roofing, and decking.

West Coast Lumbermen's Assn., Portland.

For copy, check No. 47 on coupon, p 214

Wood kitchen handbook, a 36-page booklet from the cabinet makers' association, has just been brought out in a new edition. It presents all the arguments for wood, describes shop construction, tells what is available in wood cabinets, helps on how to plan, install, and maintain modern kitchens.

Nat'l Institute of Wood Kitchen Cabinets, Chicago.

For copy, check No. 43 on coupon, p 214

Cutting air-conditioning costs with insulation is promoted in a new booklet from Borg-Warner's Reflectal Corp. Up to \$400 savings per house are claimed in tonnage reduction and operating cost cuts. Text includes Bureau of Standards findings on effectiveness of ceiling insulations against summer heat.

Reflectal Corp., Chicago.

For copy, check No. 45 on coupon, p 214

How to use wood better through improved fasteners is the subject of a new 44-page booklet by Prof. E. George Stern and published by the VPI Wood Research Laboratory. First part describes improved nails, self-drilling screws, sheet-metal fasteners, truss plates, etc. Second section describes new assembly methods: trusses, box columns, framing, etc. Final section covers new nailing tools and machines.

Virginia Polytechnic Institute, Blacksburg, Va.

For copy, check No. 48 on coupon, p 214

continued on p 212

**OTHERS SELL
VENTILATION...**



Trade-Wind
SELLS COMFORT!

Combine the quality features of Trade-Wind Space Saver Hoods and the result is GREATER COMFORT for the customer.

This new line of Trade-Wind Ventilating Hoods gives the customer:

- ... Quiet, powerful ventilation that tops everything on the market.
- ... Cabinet space entirely free for storage.
- ... A new style trend in hood design which is highlighted by the custom look of Trade-Wind craftsmanship.

All this means greater comfort and satisfaction for the user.

Trade-Wind Motorfans, Inc.

DIVISION OF ROBBINS & MYERS, INC.

7755 PARAMOUNT PLACE, DEPT. HH

PICO RIVERA, CALIFORNIA



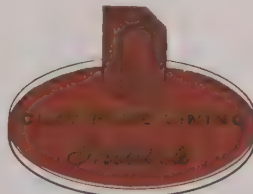
100% Fireproof CLAY FLUE LINING

Protects your homes against dangerous chimney and flue fires . . . adds value to any home

Safe With Any Fuel. No other flue lining is so safe . . . so widely accepted by the home-buyer. It's the only flue lining adaptable to all fuels—coal, oil, gas, and wood. With Clay Flue Lining, the home-owner can convert safely to any new heating system, no matter what fuel it burns. Multiple purpose flues of Clay Flue Lining are safe for fireplaces, grills, incinerators—all the extra features that make any home more attractive, more saleable.

Features The Home-Owner Can Trust. Clay Flue Lining is 100% fireproof

. . . won't melt under heat. Since it's chemically-inert, it's completely unaffected by chemicals and gases . . . does not rot, rust, or corrode. Specify and install Clay Flue Lining with confidence . . . it never wears out!



You Can Trust This Mark of Quality



Write for free fireplace folder and data filled booklet on safe chimney construction.

Alliance Clay Product Co. Alliance, Ohio
American Vitriified Products Co. Cleveland 14, Ohio
Dee Clay Products Co., Inc. Bloomingdale, Ind.
The Evans Brick Co. Uhrichsville, Ohio
Grand Ledge Clay product Co. Grand Ledge, Mich.
The Kopp Clay Co. Malvern, Ohio
Larson Clay Pipe Co. Detroit 34, Mich.
Malvern Flue Lining, Inc. Malvern, Ohio

Mill Hall Clay Products, Inc. Mill Hall, Pa.
Natco Corp. Pittsburgh 22, Pa.
Peerless Clay Corp. Toronto, Ont.
Thos. Somerville Co. Washington 2, D.C.
Straitsville Brick Co. New Straitsville, Ohio
Western Clay Products, Ltd.
Regina, Saskatchewan, Canada
Worthington Ceramics

Talk About Speed!

Only 12 man-hours
to strip, move, set up
and pour



Vix Construction Company residential development, Englewood, Colorado

With just two men working, Warren Garrett, Denver concrete forming contractor, forms and pours a 37'8" x 23'0" residential basement foundation in twelve man-hours per working day...and not just once but consistently throughout many similar foundations!

Using Gates Horizontal Rod Forming System with 2' x 8' panels, Garrett places four rows of form ties in the wall and, to gain extra speed and economy, uses Gates re-usable Channel Top Ties at the top of the forms.

Here's a typical working schedule used by his crew in handling 121 lineal feet of forming:

6:30 A.M. Start cutting ties preparatory to stripping forms from previously poured foundation.

7:55 A.M. Forms and equipment have been moved and corner panels are set and braced in place on the footing.

9:00 A.M. Outside forms have been completely erected and braced plumb and true. The inside form will "float" to eliminate unnecessary waling and stiffening.

11:10 A.M. All forming has now been completed, including placement of two rows of reinforcing bars and seven windows.

12:30 P.M. Twenty-two cubic yards of concrete have been placed. Forms and bracing are given a final check and the job is complete.

Investigate the many ways Gates Forming Systems can lower your costs and keep quality high. Additional information plus technical assistance is available from your Gates Dealer, or write direct.

Gates & Sons, Inc.

80 S. Galapago Denver 23, Colo.

Branches in

SPOKANE, ROCHESTER and CALGARY

HH/859

Publications

start on p 210

Catalogs

Electrical comfort heaters

The several types of Chromalox equipment for radiant, convection, forced hot air, and combination heating—26 in all—are shown in a new 16-page booklet. Residential types shown are convection-radiant baseboards, forced-air wall heaters, circulating-air wall heaters, convection floor drop-ins, convection cabinets, radiant wall panels, radiant ceilings, radiant bathroom heaters. Full technical details and specifications are given.

Edwin L. Wiegand Co, Pittsburgh.

For copy, check No. 49 on coupon, p 214

Wagner loaders & backhoes

Heavy-duty equipment matched to International 240, 340, 460, and 560 utility tractors are described in a new 16-page catalog. Included are two backhoes and five loaders, making in all eight recommended tractor-loader-backhoe combinations.

International Harvester, Chicago.

For copy, check No. 50 on coupon p 214

Rangaire hoods . . .

Full line of range hoods for under-cabinet, freestanding, or island use at retail prices from \$48 to \$132 are shown in a new four-color brochure. Also shown: matching color accessories.

For copy, check No. 51 on coupon, p 214

. . . and intercoms

Three systems—a 16-station system from \$202, an 8-station system from \$146, and an 8-station system from \$100—are shown in this brochure with accessory speakers and mikes.

Roberts Mfg Co, Cleburne, Tex.

For copy, check No. 52 on coupon, p 214

Spec sheets

Patco heating units. Oil-fired boilers to deliver 115,200 to 324,000 Btuh are described in a table in this two-page spec sheet.

Patco Mfg Co, Philadelphia.

For copy, check No. 53 on coupon, p 214

Nordson airless spray. Both the system and the equipment for airless spray coating are shown in this 4-page leaflet.

Nordson Corp, Amherst, Ohio.

For copy, check No. 54 on coupon, p 214

Southern pine siding. An Architect's Bulletin from the trade association gives concise information on choosing, using, and finishing pine siding.

Southern Pine Assn, New Orleans.

For copy, check No. 55 on coupon, p 214

Air duct insulation. Technical data on glass-fiber liners and wraps for metal ducts is set forth in a new L-O-F bulletin detailing specifications, performance, etc.

L-O-F Glass Fibers Co, Toledo.

For copy, check No. 56 on coupon, p 214

Barcol door operator. Performance and installation detail on Model L operators for garage doors up to 240 sq ft in area.

Barber-Colman, Rockford, Ill.

For copy, check No. 57 on coupon, p 214

continued on p 214

BRIKCRETE

*GUARANTEED TO CONTAIN NO CLAY

MODERN MASONRY

for the GREAT MASS MARKET

B-22

Millions of Brikcrete have gone into the building of homes, apartment units, motels, schools, churches—all types of residence and commercial construction. Not only because of economy, but for the more important reasons of beauty, comfort and modernity.

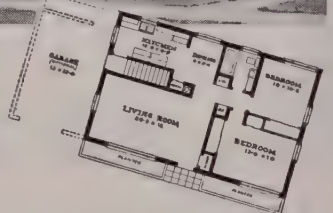
Brikcrete is the world's most modern masonry, with size, design, proportion and color range in line with today's style trends. Yet — material for material — it usually costs less than lumber. Far below that of ordinary brick. For example:

\$452¹⁰*

**Buys all Brikcrete
for the "Brikadier"**



*National average, including planters, excluding garage. May vary by locality.
Basic Brikadier is 36' x 24'; 912 sq. feet; 2 bedrooms and denette. Blueprints, \$15.00 per set.



The "Brikadier" is only an example of how little Brikcrete costs. The same low price per square foot applies to any houses you may be planning to build. Local manufacturing explains why Brikcrete can give more value for less cost. Local plants, using local raw materials enable factory-to-builder contacts. Eliminate costly freight and distribution costs. Ask for Brikcrete Book No. 1.

Growing demand for Brikcrete demands more local plants. Building contractors are in exceptional position as plant owners, not only for their own projects but also to supply other needs of the community. High profit-potentials are open to men alert to latent opportunity. Plants operate in franchise-protected territories. We supply all equipment, giving responsible operators up to 5 years to pay. If interested, ask for Brikcrete Book No. 2.

BRIKCRETE ASSOCIATES, INC.

416 W. 25th Street

Holland, Mich.

WORLD'S MOST MODERN MASONRY





For an effective builder promotion

LIVE BETTER ELECTRICALLY and ADVERTISED-IN-LIFE
add up to a solid selling combination. Here's how:

A 30-page, million-dollar advertisement will run in the September 14 issue of LIFE, featuring the Live Better Electrically Medallion Home to the 32,000,000 LIFE readers.

This ad, the biggest ever run in LIFE, is sponsored jointly by major manufacturers and the Edison Electric Institute . . . to tie in with National Home Week. It includes:

- 9 pages of editorial-style copy showing how a new level of luxury in electric living can be enjoyed.
- 7 pages of Edison Electric Institute advertising launching the fall campaign of EEI's National Electric Living Program.
- 14 pages of manufacturer copy presenting new ideas in products for living better electrically.

Why was LIFE chosen?

Because LIFE readers have proved themselves to be a builder's best customers.

They're enthusiastic . . . interested in living better and they reach out for "the ease, beauty, convenience and luxury of all-electric living

as offered by the Medallion Home." They're eager to be sold on the new.

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43. ☐ Wood kitchen cabinet guide
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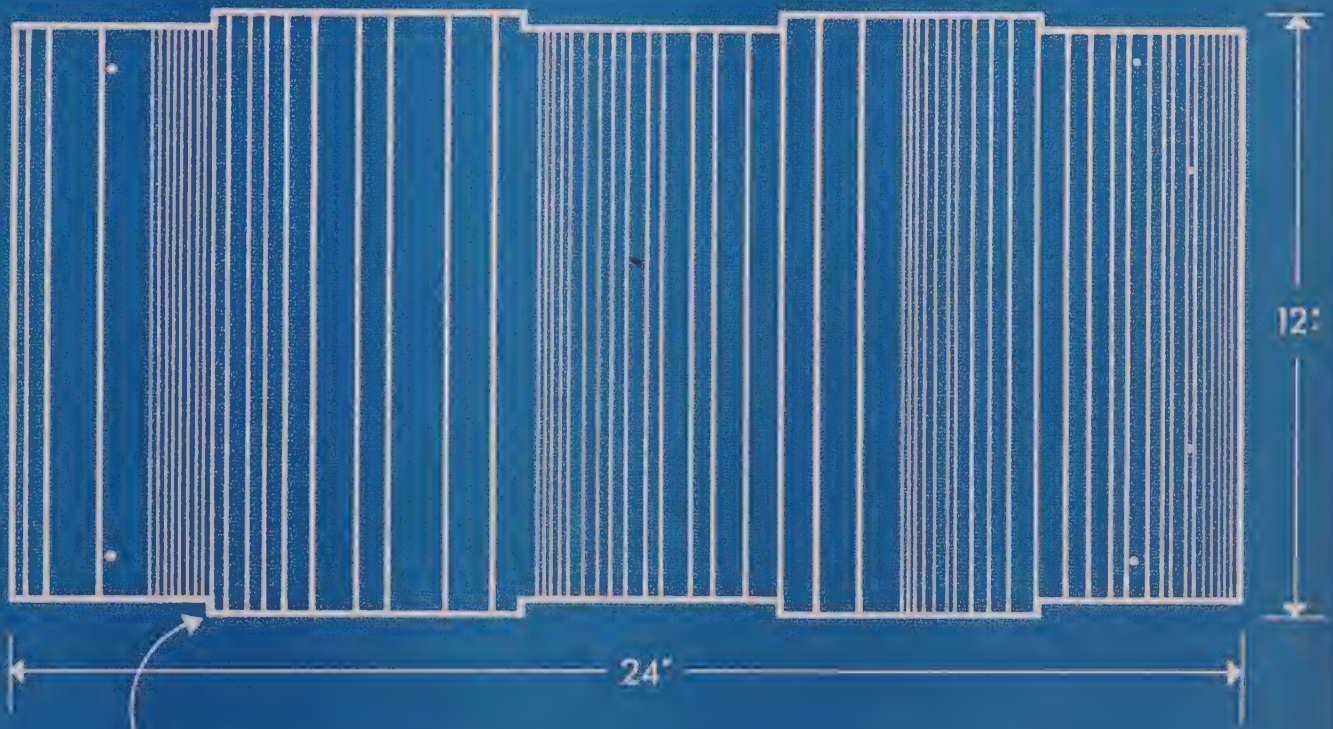
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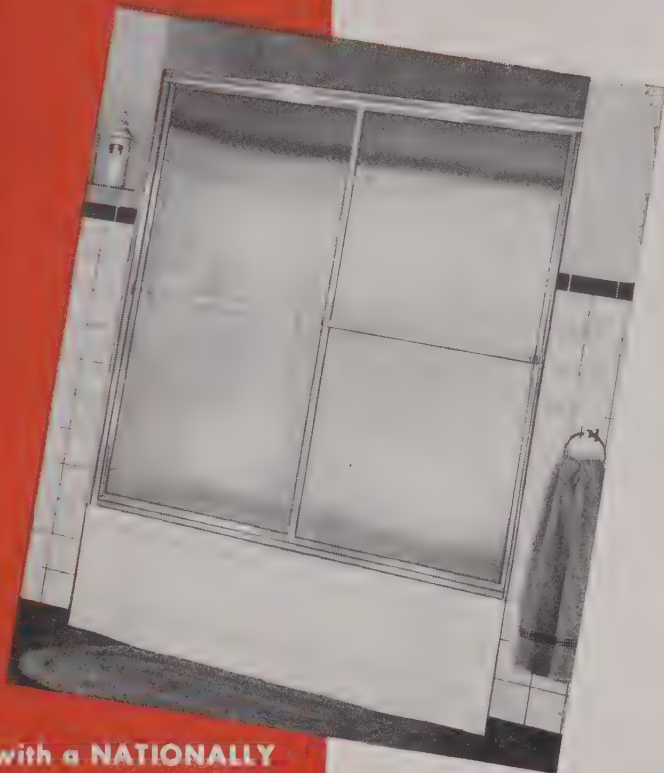
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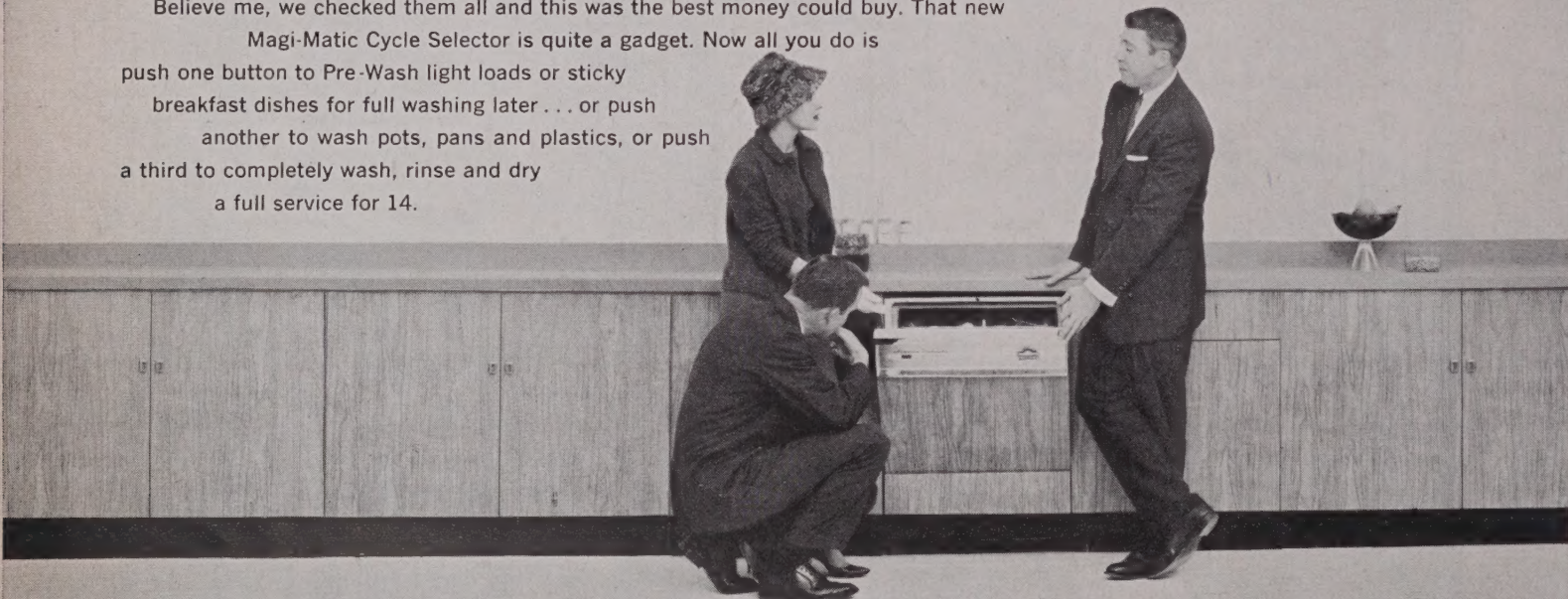
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